

Analysis of Garlic Effects on Human Health in the World

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Abstract

Agriculture play key role in the development of the world because it supply food to human being for its survival. Gradually garlic is considered vegetable. Its botanical name is *Allium Sativum* which belongs to family Lillaceae. Garlic is consumed everyone in the world due to its medicinal value and flavor. It is the rich sources of vitamin B6, Vitamin C, sulfur compound, calcium, iron, magnesium, phosphorous, potassium, sodium, zinc, manganese and allin which are the important component of the body. Seeing to its importance the study was carried out since August 2018. The major objective of the study was to analyze the Garlic effects on human health in the study area. Total ten articles were download from the net and each one read to ten times and studied in depth while also collected data from 100 respondents of the University community through questionnaire about garlic utilization. The result analyze that garlic play key role in the control of human diseases while excessive consumption create miss happening in the human body. The study further explains that the people who eat garlic, having less chances of blood pressure and heart disease. It reduces the severity of flue, common cold and gangrene while decline the low density lipoprotien (LDL) cholesterol who have high cholesterol level. Its eating also lessen the effect of colon cancer, rectal cancer, stomach cancer, bladder cancer, breast cancer, prostate cancer, multiple myeloma, lung cancer, Alzheimer, dementia diseases and hyperlipidaemia. Similarly garlic decreases the sugar in human body and control the diabetes. It improves physical performance in lab animals and heart disease able person while also decrease the lead toxicity in the human body who work in battery places. Diluted garlic extract play major role in tapeworm infections in the children. It fed to athletes for stamina increasing, however garlic are used as a useful compound in treatment of arthritis, toothache, chronic cough, constipation, parasitic infestation, snake and insect bites, gynecologic diseases, as well as in infectious diseases. Garlic extracts work as antimicrobial in bacteria, fungi and virus. The people use it in multiple dishes for the purpose of flavor and taste while also used its mixture for the healthiness of hair. Garlic spray is used for mosquitoes control in the world while also some time used for the control of harmful insects as insecticides. Green garlic play key role in cleaning the vessels of the human arteries. Garlic excess consumption cause heartburn in human being while some time also cause vomiting, irritation, liver toxicity, nausea, Eczema, Dizziness, hyphema, kidney hematomas and gastro esophageal reflux diseases in human body. Not only for the human being it is beneficial but also beneficial for the animals. The eating of garlic is prohibited for Asthma disease able persons and pregnant women while also prohibited in the time of any surgery because it increases the bleeding time. The study finally recommended that three cloves eating of garlic on daily basis is beneficial for human being while Doctor advised is required because sometime instead of benefits the garlic is allergic for human body. Similarly many clinical trials showed a positive effect of garlic for above mentioned diseases while recent studies indicate doubt about cholesterol lowering. It is a big challenge for all scientists in the world to make a proper use of garlic because it is the cheapest way to prevent cardiovascular disease. The study finally recommend that to increase garlic productivity in the study area and new research laboratories should be increased for the chemical analysis of garlic in the world, to practically know the situation either garlic is beneficial or harmful for human being.

Keywords:- Analysis, Effects, Human Health, World

1. INTRODUCTION

The biologic growth on the farm through scientific and artific way is called agriculture. Raising of crops and livestock on the farm is called agriculture. Agriculture play important role in the development of a country. They provide food to population for their survival. Good and excellent agriculture solve the problems of food crisis in the world. Pakistan is agriculture country and highly depend on agriculture. Its contribution in GDP is 19.5% and employment share is 43.5% while in export is 60% (Economic survey of Pakistan 2017). Garlic belong to the group of vegetables and its technical name is *Allium Sativum*. It is frost resistant crop requires cool period during early growth and dry period near maturity. The increase in day length from 8 to 12 hrs increase the bulb weight, bulb diameter and number of cloves and reduce the number of secondary leaves. Garlic is planted in single clove but bulbils are also used occasionally. In hilly area, this crop is planted in March-April while in plain, it is planted from August to Oct.

The quantity of planting material required per area depend on clove size and number of cloves per bulb. A distance of 15 to 20 cm (row to row) and 8 to 10 cm (plant to plant) is recommended. Garlic responds very well to organic manure, application of 16-20 tones/acre at the time of field preparation is recommended. Application of N:P:K @ 75:85:55 kg produce higher yield. At the time of planting, half of nitrogen along with full dose of P

and K should be used, the remaining half of nitrogen be applied 30-45 days after planting. Garlic crop needs irrigation once in a week during vegetative growth and at 10-15 days interval near maturation. Garlic is a closely planted crop which requires 3-5 manual hoeing for higher yield. However weeding is laborious, expensive and often damage the plants therefore weeds can be controlled by using oxadiazon (0.5 lit/acre) and pendimethalin (1.0 lit/acre), as pre-emergence weedicides . The crop is ready for harvest when the tops turn brownish and show signs of drying up and bend over. The bulbs mature in 4-6 months after plantation depending upon the climate. Average garlic bulb yield is about 6 to 10 tones/hectare in different areas of Pakistan. However, a yield of 21.0 tones/hectare was obtained by cultivar chinese at NARC. .

The area under garlic crop in Punjab, Sind and KP are almost same while Blochistan is many fold less. Average production (tonnes/ha) was more in KP and Punjab as compared to Sind. The area and production of different provinces are given in Table.1

Table -1 Area & production of garlic crop in Pakistan.

Provinces	Area 000 Hectares		Production 000 Tons		Average Production(000 tones /heat	
	1997-9	1998-99	1997-98	1998-1999	1997-98	1998-99
Punjab	2.7	2.9	28.9	30	10.70	10.34
Sind	2.	2.8	17.4	17.5	6.21	6.25
KP	2.8	2.9	29.6	30.9	10.57	10.66
Baluchistan	0.5	0.6	3.9	4.3	7.80	7.17
Pakistan	8.8	9.2	79.8	82.7	9.07	8.99

Fruit, vegetable and condiments statistic of Pakistan 1998-99 (MINFAL, March, 2000)

Garlic bulbs can be best stored for 3-4 months in well ventilated room. Storability is also affected by enzyme activity and the cultivars most suitable for storage generally have low ascorbate and polyphenol oxidase activity. Application of 2500 or 5000 ppm MH as foliar spray before harvest is reported to inhibit sprouting in storage up to 300 days without any appreciable adverse effects on yield. The treatment also reduced the loss in weight of bulbs stored at low temperature (1.0 to 8.0C). Best control of garlic rust (*Puccinia allii*) can be obtained with Mancozeb 80 w.p. @ 1.92 kg/ha. Fusarium rot in stored garlic caused by *Fusarium oxysporum* and *F. solani* can also be controlled by fumigation with formalin (Rath and Motharty, 1980) Stored garlic is observed to be infested by larvae of *Ephestia elutella*. Fumigation with Phosphine tablets is an effective treatment. It gives good flavor in the food. In Amrica 50% fresh garlic is dried and sold to food processor. The major producing country in the world are Turkey, Thailand, Korea, China, Egypt and Pakistan etc. It is a rich source of carbohydrates, protein, phosphorous, ascorbic acids etc. The uninjured bulb consists of colorless, odorless water soluble amino acid alliin. On the crushing the enzyme allinase break down into allin which produce allicin which is the principal ingredient of the odoriferous diallyl disulfide. It is considered valuable food of the world and used in many food. It is used in food for various ailments and physiologic disorders of the body (Pakistan.Com.22/08/2018(<http://www.pakissan.com/english/allabout/horticulture/vegetables/garlic.shtml>)).

Now a day garlic is considered as a medicine for living organism. Some doctors used for control of blood pressure while some used for control of insects which annoy to human being, so it is used every time for the beneficial of human being Seeing to its importance the study was arranged to analyze the effects of garlic on human health in the world

2. METHODS AND MATERIAL

The Universe of the study was the whole world. The study was carried out since 2018. The major objective of the study was to analyze the effect of garlic on living organism in the world. The total 10 articles belong to world were download from the net and each one read to ten times and studied in depth while also collect the data from the University community through questionnaire about garlic utilization while total respondents number was hundred.

3. RESULT OF RESPONDENTS AND REVIEW OF LITERATURE

All 100 respondents told that garlic is used very early in the common dishes while now a day, its utilization is decreasing day by day which have creates the problem of blood pressure and heart disease in the young one in the study area. It was also reported by all respondents that the people who use garlic, there the heart disease chances is less than those, who do not use garlic. It was also recorded by respondents that the people of Khyber Pukhthunkhawa are very poor and have less purchasing power, so majority do not go to doctors and they use the clove of garlic as a dose for control of blood pressure. Similarly few peoples go to doctors' clinic and use artificial dose for the control of blood pressure and heart disease. They eat the tablets for its curement. Seventy five percent respondents told that they use garlic for healthy hair and scar removal while some tome used for the healthy stamina. It is recorded by all respondents that garlic is used as a taste and flavor in all dishes. Few people

also used for healing while some veterinary scientist use garlic for control of tick and blood pressure in animal in the lab. Now a day agriculturist sprays the garlic mixture for aphid control in the garden. Some time farmer use for white ant control, in poplar. (Field Survey by Dr.Naushad Khan 6th August, 2018) .

One of the most common ingredients in Indian cooking, garlic is being consumed for thousands of years. And has been used for flavoring in traditional medicine. It is scientifically called *Allium Sativum*, and can usually be grown year-round in mild climates. The plants are usually grown together with the bulbs having enough space to mature. There are numerous varieties of garlic, the most popular are hard neck garlic and the soft neck garlic. The plant is not usually affected by any pests or disease. There is no need to ponder over the importance of the liver. Being one of the most vital organs in the human body, it could be hurt by excessive garlic consumption and cause liver toxicity if consumed in excess. Similar findings have been recorded in a report published by the University of Penn State – garlic, though virtually non-toxic, can cause liver damage if taken in excess. Certain experts believe that the chemicals in garlic that contribute to bad breath are the very same chemicals that also render its benefits. According to a report published by the National Cancer Institute, consuming fresh garlic bulbs, or the extracts or the oil on an empty stomach might cause nausea, vomiting, and heartburn. Certain observational studies have also shown that in taking garlic orally can cause heartburn and nausea. As per a report published by the Harvard Medical School, garlic is one of those foods that can cause gastro esophageal reflux disease. Consuming garlic on an empty stomach can also cause diarrhea. Another report states garlic to be a gas-forming food and hence might trigger diarrhea. This effect of garlic has been stated in a report published by the University of Maryland Medical Center – garlic can increase the risk of bleeding. This is true especially in the case of fresh garlic. It is also important to note that it is better to stop garlic consumption at least two weeks before a scheduled surgery while it can prolong bleeding and interfere with blood pressure levels. One Japanese study, enteric-coated garlic products, upon ingestion, resulted in the reddening of the gastric mucous membrane. The results suggest that caution must be exercised before using garlic and related products as they might have certain undesirable effects on gastric health .In fact, as against popular belief, there is no evidence that links garlic intake to the prevention of gastric cancer. Taking garlic by mouth can also modestly reduce blood pressure. Induces Sweating in various clinical studies, few side effects of garlic were reported. And one of those, as per an Indian study, were excessive sweating. In one study, 1,997 people were administered deodorized garlic over a 16-week period, of which 1.3% reported signs of dizziness. This effect was specifically recorded when the participants were standing. Experts speculate this effect could be the result of excessive lowering blood pressure levels. Though the percentage of the participants experiencing the effect is quite small, it is something to be kept in mind. Though replete with benefits, prolonged contact with garlic might cause skin irritation. One study stated that the enzyme in garlic, called alliin lyase, could be the cause of the irritation. Eczema could also be one of the conditions that accompany this allergy. According to a report published by Medline Plus, certain hand rashes could be the result of coming in contact with the same things (including garlic) regularly. It has been found that excessive ingestion of garlic can lead to a condition called hyphema, which refers to bleeding inside the eye chamber – the space between the iris and the cornea. In taking large doses of garlic, an anticoagulant, has been found to cause or worse hyphema. Hyphema can cause permanent vision loss. Garlic, especially when taken in its raw form, could trigger migraines. Though it doesn't directly cause a migraine headache, it activates the process responsible for it. Though the exact reason for this is unclear, certain experts believe it might involve the trigeminal nerve – the major pain pathway in the body. In taking garlic might stimulate this nerve to release neuronal signaling molecules called neuropeptides that rush to the membrane covering your brain and cause headaches. Little information is present in this aspect but there is something important to consider. The release of allicin is what makes garlic ideal for lowering blood pressure levels – but this allicin is destroyed in the cooking process . Hence, if you are looking to reducing your blood pressure levels, raw garlic might help. Consuming garlic in large quantities during pregnancy or lactation can induce labor . Which could be undesirable. One important factor to be kept in mind is not to use garlic in the place of prescribed treatment. Also, garlic cloves can irritate the tender tissue of the vagina. In such an eventuality, the use of garlic can be discontinued. You can instead consult your doctor for conventional remedies. As report published by the University of Utah, garlic might interact with Rofecoxib, a drug used to treat inflammation .That's about the garlic side effects. And they have something else regarding intake of raw garlic overdose side effects .Which is what have discussed already. In addition to all those effects, garlic overdose might also cause muscle aches and loss of appetite. And as per the Memorial Sloan-Kettering Cancer Center, garlic overdose could also cause kidney hematomas (swelling of clotted blood within the tissues of kidneys), chemical burns in the mouth and life-threatening allergic reactions. Garlic might also cause a condition called pemphigus, an autoimmune disease. Garlic contains a compound called thiols, which has been found to aggravate the condition. Apart from all of this, there is a list of foods you must not take along with garlic – if you are prone to the side effects, (Ravi, 30, January, 2018).

Garlic is a plant in the onion family that grown for its distinctive taste and health benefits. It contains sulfur compound, which are believed to bring some of the health benefits. Garlic is low in calories and rich in vitamin

B6, Vitamin C and manganese. It also contains trace amounts of various other nutrients. Garlic supplements help prevent and reduce the severity of common illness like the flue and common cold . High doses of garlic appear to improve blood pressure for those with known high blood pressure . In some instance, supplements may be as effective as regular medications. Garlic supplement seem to reduce total and LDL cholesterol, Particularly in those who have high cholesterol . HDL cholesterol and triglycerides do not seem to be affected. Garlic contains antioxidants that protect against cell damage and aging. It may reduce the risk of Alzheimer's disease and dementia. Garlic has known beneficial effects on common causes of chronic disease, so it makes sense that it could also help you live longer. Garlic may improve physical performance in lab animals and people with heart disease. Benefits in healthy people are not yet conclusive. Garlic was shown to significantly reduce lead toxicity and related symptoms in one study. Garlic appears to have some benefits for bone health by increasing estrogen levels in females but more human studies are needed. Garlic is delicious and easy to add to your diets (**Leech, June 28, 2018**).

Here is something irresistible about the aroma of roasted garlic. It is so captivating with its powerful notes, that it has long been used as a flavor booster in curries, stir-fries, pizza toppings, pastas, meat preparations, dips. It has the power to instantly liven up any dish and treat some of the most common ailments. While garlic is a common ingredient in every kitchen, in the ancient times, it was highly valued for its numerous health benefiting properties, which are still followed in many cultures today. Our ancestors have used it as a bug-repellant, Medieval Europe against plague and the Egyptians would even bury it along with their dead. The sulphure containing compound, Allicin, found in fresh, crushed or chewed garlic has anti-bacterial and anti-fungal properties, and some startling claims mention that it may help prevent some forms of cancer too. Garlic is a part of the onion family and the 'bulb' of this herb typically consists of 10-20 smaller sections called the 'cloves'. Each small clove is a powerhouse of flavor as well as medicinal properties. Every 100 grams of garlic will serve you with close to 150 calories, 33 grams of carbs, 6.36 grams of protein. Garlic is also enriched with Vitamin B1, B2, B3, B6, foliate, Vitamin C, calcium, iron, magnesium, manganese, phosphorous, potassium, sodium and zinc. Dr. Simran Saini, Delhi-based Nutritionist and weight loss consultant is a fan of the medicinal benefits of garlic. She says, "The high sulphur content in garlic gives it antibiotic properties, helping keep the digestive system clean by flushing out toxins. It also builds the immunity against common cold and prevents heart ailments by clearing up blocked arteries. It is great for rejuvenation and healing of skin scars and gives a glow to the skin as it keeps digestion in top-shape." She advises to consume garlic in a specific manner- place a clove between two teeth, bite a little to release its extracts and then swallow whole with water. She says, "the medicinal value of garlic is best unlocked when it is consumed raw. Tired of covering up those zits with concealed every morning? It's time to tackle the root cause of acne by purifying your blood from inside to get healthy skin on the outside. Take two cloves of raw garlic with some warm water everyday, early in the morning and consume a lot of water the entire day. If you're looking to shed some pounds, squeeze the juice of half a lemon in a glass of luck warm water and have it with 2 cloves of garlic in the mornings. Garlic will help to cleanse your system and flush out toxins. Garlic is going to provide you relief from that stubborn cold and flu (yes, they absolutely love you and never want to leave). Taking 2-3 cloves of raw or cooked garlic a day or sipping some garlic tea (with a touch of honey or ginger to lift up the taste) is not only going to relieve a stuffed nose and cure the cold but also build your immunity against these frequent visitors over time. According to Dr. Shikha Sharma, Delhi-based Health and Wellness Expert, and founder of Nutrihealth says," One of the earliest uses of garlic was by meat-eaters because it was believed that meat could cause infection which garlic could fight off from the body. More commonly used by laborers who are exposed to infections and disease-friendly environments till recently, its plethora of health benefits has made white-collar workers also take to it." She added, "Garlic can be added to hot stews, broths and soups to fight sinusitis, cold and flu. And garlic is best had in its raw state.". Consuming garlic on a daily basis (in food or raw) helps to lower cholesterol levels because of the anti-oxidant properties of Allicin. It is also immensely beneficial to regulate blood pressure and blood sugar levels. It is essential to remember that the sculpture-containing compound. Allicin tends to lose its medicinal properties when garlic is cooked whole. It is imperative to consume garlic raw or semi-cooked to derive any of its benefits. Garlic is one of the best kept medicinal treasures of the past era - it has been used as an antibiotic to treat bacterial, fungal and parasitic infections for the last 7,000 years. Studies suggest diluted garlic extract helps children with tapeworm infections. A garlic-based mouthwash may not sound like fresh, minty breath but a very small quantity of its extracts is sufficient to ward off cavity-causing bacteria. Several studies have indicated an association between daily consumption of garlic and prevention of stomach and colorectal cancers. It is said to strengthen the immunity of the body against cancer. The invigorating properties of garlic protect the skin from the effect of free radicals and slow down the depletion of collagen which leads to loss of elasticity in aging skin. Applied topically, garlic does wonders to skin infected with fungal infections and provides relief from skin ailments like eczema. It is also an effective remedy for fungal infections like athlete's foot and ringworms. All of us know about the wonders of onion for hair but its brother, garlic is no less of a hero for your thinning mane. Well, its surprise time. Rubbing crushed garlic extract on your scalp or massaging with garlic-infused oil is known to prevent and even reverse

hair loss. Many of garlic's astounding uses were forgotten in the folds of time but users (and believers) still vouch for the lesser-known benefits. One of them is against stubborn splinters. Place a piece of cut garlic over the splinter cut and cover with a bandage- and voila! Bye-bye splinter. Asthma patients should not consume garlic as it may have side-effects. Garlic should be avoided before surgeries or medical operations. Do not consume more than 2-3 garlic cloves in a day without consulting a doctor.(<https://food.ndtv.com/food-drinks/powerhouse-of-medicine-and-flavour-surprising-health-benefits-of-garlic-1200468>)

Garlic is an herb that is grown around the world. It is related to onion, leeks, and chives. It is thought that garlic is native to Siberia, but spread to other parts of the world over 5000 years ago. Garlic is used for many conditions related to the heart and blood system. These conditions include high blood pressure, low blood pressure, high cholesterol, inherited high cholesterol, coronary heart disease, heart attack, reduced blood flow due to narrowed arteries, and "hardening of the arteries" (atherosclerosis). Some people use garlic to prevent colon cancer, rectal cancer, stomach cancer, breast cancer, prostate cancer, multiple myeloma, and lung cancer. It is also used to treat prostate cancer and bladder cancer. Garlic has been tried for treating an enlarged prostate (benign prostatic hyperplasia; BPH), cystic fibrosis, diabetes, osteoarthritis, hay fever (allergic rhinitis), traveler's diarrhea, high blood pressure late in pregnancy (pre-eclampsia), yeast infection, flu, and swine flu. It is also used to prevent tick bites, as a mosquito repellent, and for preventing the common cold, and treating and preventing bacterial and fungal infections. Garlic is also used for earaches, chronic fatigue syndrome, menstrual disorders, abnormal cholesterol levels caused by HIV drugs, hepatitis, shortness of breath related to liver disease, stomach ulcers caused by H. pylori infection, exercise performance, exercise-induced muscle soreness, a condition that causes lumps in the breast tissue called fibrocystic breast disease, a skin condition called scleroderma, and lead toxicity. Other uses include treatment of fever, coughs, headache, stomach ache, sinus congestion, gout, joint pain, hemorrhoids, asthma, bronchitis, shortness of breath, low blood sugar, snakebites, diarrhea and bloody diarrhea, tuberculosis, bloody urine, a serious nose and throat infection called diphtheria, whooping cough, tooth sensitivity, stomach inflammation (gastritis), scalp ringworm, and a sexually transmitted disease called vaginal trichomoniasis. It is also used for fighting stress and fatigue. Some people apply garlic oil to their skin or nails to treat fungal infections, warts, and corns. It is also applied to the skin for hair loss and thrush. Garlic is used in the vagina for yeast infections. Garlic is injected into the body for chest pain. In foods and beverages, fresh garlic, garlic powder, and garlic oil are used to add flavor. Garlic produces a chemical called allicin. This is what seems to make garlic work for certain conditions. Allicin also makes garlic smell. Some products are made "odorless" by aging the garlic, but this process can also make the garlic less effective. It's a good idea to look for supplements that are coated (enteric coating) so they will dissolve in the intestine and not in the stomach. As people age, their arteries tend to lose their ability to stretch and flex. Garlic seems to reduce this effect. Taking a specific garlic powder supplement (Allicor, INAT-Farma, Moscow, Russia) twice daily for 24 months seems to reduce how much hardening of the arteries progresses. Higher doses of this product seem to provide more benefits in women than men when taken over a four year period. Research with other products containing garlic along with other ingredients (Kyolic, Total Heart Health, Formula 108, Wakunga) have also shown benefits. Garlic seems to modestly reduce pre-meal blood sugar levels in people with or without diabetes. It seems to work best in people with diabetes, especially if it is taken for at least 3 months. It's not known if garlic reduces post-meal blood sugar levels or HbA1c levels. High cholesterol. While not all research agrees, the most reliable evidence suggests that taking garlic can reduce total cholesterol and low-density lipoprotein (LDL, "bad" cholesterol) by a small amount in people with high cholesterol levels. Garlic appears to work best if taken daily for more than 8 weeks. However, taking garlic doesn't help increase high-density lipoprotein (HDL, "good" cholesterol) or lower levels of other blood fats called triglycerides. Taking garlic by mouth seems to reduce systolic blood pressure (the top number) by about 7-9 mmHg and diastolic blood pressure (the bottom number) by about 4-6 mmHg in people with high blood pressure. Men in China who eat about one clove of garlic daily seem to have a 50% lower risk of developing prostate cancer. Also, population research shows that eating garlic may be associated with a reduced risk of developing prostate cancer. But other research suggests that eating garlic does not affect prostate cancer risk in men from Iran. Early clinical research suggests that taking garlic extract supplements might reduce the risk of prostate cancer or reduce symptoms associated with prostate cancer. People who consume high amounts of garlic over about an 8-week period seem to have a reduced number of tick bites. But it's not clear how garlic compares to commercially available tick repellents. Applying a gel containing 0.6% ajoene, a chemical in garlic, twice daily for one week seems to be as effective as antifungal medication for treating ringworm. Applying a gel containing 0.6% ajoene, a chemical in garlic, twice daily for one week seems to be as effective as antifungal medication for treating jock itch. Applying a gel containing 1% ajoene, a chemical in garlic, seems to be effective for treating athlete's foot. Also, applying a garlic gel with 1% ajoene seems to be about as effective as the medicine Lamisil for treating athlete's foot. Taking garlic does not seem to reduce the risk of developing breast cancer. Research suggests that taking garlic oil macerate daily for 8 weeks does not improve lung function, symptoms, or the need for antibiotics in children with cystic fibrosis and lung infection. In children with high levels of low-density lipoprotein (LDL or "bad") cholesterol, taking garlic powdered extract by mouth does not seem to improve cholesterol levels or blood pressure. Ulcers caused by a bacterium called Helicobacter pylori (H. pylori). Taking garlic by mouth for H.

pylori infection used to look promising due to laboratory evidence showing potential activity against *H. pylori*. However, when garlic cloves, powder, or oil is used in humans, it does not seem to help treat people infected with *H. pylori*. Taking garlic by mouth does not seem to reduce the risk of developing lung cancer. Taking garlic by mouth does not seem to repel mosquitoes. Leg pain associated with poor blood flow (peripheral arterial disease). Taking garlic by mouth for 12 weeks does not seem to reduce leg pain when walking due to poor circulation in the legs. Early evidence suggests that taking a specific garlic extract (Garlet) daily during the third trimester of pregnancy does not reduce the risk of developing high blood pressure in women who are at high risk or pregnant for the first time. Early evidence suggests that applying a garlic 5% gel along with a topical steroid for 3 months increases hair growth in people with hair loss. Early research suggests that administering garlic intravenously (by IV) for 10 days reduces chest pain compared to intravenous nitroglycerin. Early research suggests that taking a liquid garlic extract daily for one month reduces prostate mass and urinary frequency. But the quality of this research is questionable. Some research has found that eating more garlic is linked with a reduced risk of colon or rectal cancer. But other research does not support this. It's too soon to know if taking garlic supplements can help reduce the risk of colon or rectal cancer. Early research suggests that garlic might reduce the frequency and number of colds when taken for prevention. Early research suggests that applying certain garlic extracts to corns on the feet twice daily improves corns. One particular garlic extract that dissolves in fat seems to work after 10-20 days of treatment. Some early research suggests that taking a specific garlic product (Allicor, INAT-Farma, Moscow, Russia) for 12 months reduces the risk of sudden death and heart attack in people at risk for developing clogged arteries. Other early research suggests that taking a supplement containing aged garlic (Kyolic, Total Heart Health, Formula 108, Wakunga) might prevent clogged arteries from worsening. Early research on the use of garlic for preventing cancer in the esophagus is inconsistent. Some evidence suggests that eating raw garlic does not prevent the development of cancer in the esophagus. However, other population research suggests that consuming garlic weekly does decrease the risk of developing cancer in the esophagus. Early evidence suggests that taking allicin, a chemical in garlic, daily for 14 days can reduce muscle soreness after exercise in athletes. Early research suggests that taking a single 900 mg dose of garlic before exercise can increase endurance in young athletes. Early research suggests that taking a specific combination product (Karinat, INAT-Farma, Moscow Russia) containing garlic, beta-carotene, vitamin E, and vitamin C twice daily for 6 months reduces the severity of breast pain, premenstrual syndrome, and lumpy breast tissue in people with fibrocystic breast disease. Some early research has found that eating more garlic is linked to a lower risk of developing stomach cancer. But taking a specific aged garlic extract (Kyolic, Wakunaga Pharmaceutical Co) does not seem to reduce the risk of developing pre-cancer in the stomach. Early research suggests that taking a specific combination product containing garlic (Karinat, INAT-Farma, Moscow Russia) twice daily for 6 months improves digestion, stops the growth of certain bacteria (*H. pylori*), and reduces the risk of stomach cancer in people with stomach inflammation. However, the effect of garlic alone has not been determined. Early research suggests that taking garlic oil together with diphenyl-dimethyl-dicarboxylate improves liver function in people with hepatitis. However, the effects of garlic alone are not clear. Shortness of breath and low oxygen levels associated with liver disease (hepatopulmonary syndrome). Early research suggests that taking garlic oil for 9-18 months might improve oxygen levels in people with hepatopulmonary syndrome. Early research suggests that taking garlic three times daily for 4 weeks can reduce blood lead concentrations in people with lead poisoning. But it does not seem to be more effective than D-penicillamine. Early research suggests that using a garlic mouthwash three times daily for 4 weeks improves redness in people with mouth sores. People seem to be more satisfied with garlic than the drug nystatin, but it is less effective. Early research suggests that taking garlic might be linked with a lower risk of developing cancer of the plasma cells in the bone marrow. Early research suggests that using a garlic mouthwash three times daily for 4 weeks improves redness in people with mouth sores. People seem to be more satisfied with garlic than the drug nystatin, but it is less effective. Early research suggests that applying garlic paste to affected areas in the mouth can increase the healing rate in people with oral thrush. Early research suggests that using a garlic mouthwash three times daily for 4 weeks improves redness in people with mouth sores. People seem to be more satisfied with garlic than the drug nystatin, but it is less effective. Research suggests that taking garlic daily for 7 days does not benefit people with scleroderma. Some early research suggests that applying a vaginal cream containing garlic and thyme nightly for 7 nights is as effective as clotrimazole vaginal cream for treating yeast infections. But other early research suggests that taking garlic (Garlicin, Nature's Way) twice daily for 14 days does not improve symptoms. Early evidence suggests that applying a specific fat-soluble garlic extract to warts on the hands twice daily removes warts within 1-2 weeks. Also, a water-soluble garlic extract seems to provide modest improvement, but only after 30-40 days of treatment. Early research suggests that taking a combination product (Prograde Metabolism) containing many different extracts including garlic root extract twice daily for 8 weeks reduces body weight, fat mass, and waist and hip circumference when used together with diet and exercise. Garlic is likely safe for most people when taken by mouth appropriately. Garlic has been used safely in research for up to 7 years. When taken by mouth, garlic can cause bad breath, a burning sensation in the mouth or stomach, heartburn, gas, nausea, vomiting, body odor, and diarrhea. These side effects are often worse with raw garlic. Garlic may also increase the risk of bleeding. There have been reports of bleeding after surgery in people who have taken garlic. Asthma has been reported in people working with garlic, and other allergic reactions are possible. Garlic

products are possibly safe when applied to the skin. Gels, pastes, and mouthwashes containing garlic have been used for up to 3 months. However, when applied to the skin, garlic might cause skin damage that is similar to a burn. Raw garlic is possibly unsafe when applied to the skin. Raw garlic might cause severe skin irritation when it is applied to the skin. Garlic is likely safe to use during pregnancy when taken in the amounts normally found in food. Garlic is possibly unsafe when used in medicinal amounts during pregnancy and when breast-feeding. There is not enough reliable information about the safety of applying garlic to the skin if you are pregnant or breast feeding. Stay on the safe side and avoid use. Garlic is possibly safe when taken by mouth and appropriately for a short-term in children. However, garlic is possibly unsafe when taken by mouth in large doses. Some sources suggest that high doses of garlic could be dangerous or even fatal to children. The reason for this warning is not known. There are no case reports available of significant adverse events or mortality in children associated with taking garlic by mouth. When applied to the skin, garlic might cause damage to the skin that is similar to a burn. Garlic, especially fresh garlic, might increase the risk of bleeding. Garlic can lower blood sugar. In theory, taking garlic might make blood sugar too low in people with diabetes. Garlic can irritate the gastrointestinal (GI) tract. Use with caution if you have stomach or digestion problems. Garlic can lower blood pressure. In theory, taking garlic might make blood pressure become too low in people with low blood pressure. Garlic might prolong bleeding and interfere with blood pressure. Garlic might also lower blood sugar levels. Stop taking garlic at least two weeks before a scheduled surgery. For hardening of the arteries: A 300 mg garlic powder tablet (Kwai, Lichtwer Pharma), taken as a single dose or three times daily for up to 4 years, has been used. Also, 150 mg of a specific garlic supplement (Allicor, INAT-Farma, Moscow, Russia) twice daily for 24 months has been used. Combination products containing garlic have also been used. A specific aged garlic extract supplement (Kyolic, Total Heart Health, Formula 108, Wakunga) containing 250 mg of aged garlic extract taken daily for 12 months, has been used. Also, a combination product containing 300 mg aged garlic extract, taken at a dose of four tablets daily for one year, has been used. Garlic powder 600-1500 mg daily has been used for at least 12 weeks. A 300 mg garlic tablet (Allicor, INAT-Farma) taken two to three times daily with medications called metformin or sulfonylurea, for 4 to 24 weeks has been used. For high cholesterol: A dose of 1000 mg to 7200 mg of a specific aged garlic extract (Kyolic, Wakanuga) has been used daily in divided doses for 4-6 months. A dose of 600 mg to 900 mg of a specific garlic powder tablet (Kwai, Lichtwer Pharma) has been taken daily in two or more divided doses for 6-16 weeks. Also, 300 mg of another specific garlic powder product (Garlex, Bosch Pharmaceuticals) taken twice daily for 12 weeks has been used. Also, 1200 mg of garlic powder plus 3 grams of fish oil daily for 4 weeks, or 500 mg of garlic oil plus 600 mg of fish oil daily for 60 days, has been used. For high blood pressure: 300-1500 mg of garlic tablets taken in divided doses daily for 24 weeks has been used. 2400 mg of a specific garlic powder tablet (Kwai, Lichtwer Pharma) taken as a single dose or 600 mg daily for 12 weeks has been used. Capsules containing 960 mg to 7.2 grams of aged garlic extract, taken daily in up to three divided doses for up to 6 months, have been used. Specific products containing aged garlic extract include Kyolic (Garlic High Potency Everyday Formula 112, Wakunga/Wagner). 500 mg of garlic oil 500 mg plus 600 mg of fish oil daily for 60 days has been use. For prostate cancer: 1 mg/kg of a water-soluble garlic extract, taken daily for one month, has been used. Capsules containing 1200 mg of garlic taken daily for 8 weeks have been used. For fungal skin infections (ringworm, jock itch, athlete's foot): garlic ingredient ajoene as a 0.4% cream, 0.6% gel, and 1% gel applied twice daily for one week has been used. (<https://www.webmd.com/vitamins/ai/ingredientmono-300/garlic>)

Intensely aromatic and flavorful, garlic is used in virtually in every cooking in the world. When eaten raw, it has a powerful, pungent flavor to match the truly mighty garlic benefits. Garlic is particularly high in certain sulfur compounds that are believed to be responsible for its scent and taste, as well as its very positive effects on human health. Garlic benefits rank only second to turmeric benefits in the amount of research backing this super food. At the time of this article's publication, there were more than 5,100 peer-reviewed articles that evaluated garlic's ability to prevent and improve a wide spectrum of diseases. Eating garlic regularly is not only good for us; it has been linked to reducing or even helping to prevent four of the major causes of death worldwide, including heart disease, stroke, cancer and infections. The National Cancer Institute does not recommend any dietary supplement for cancer prevention, but it does recognize garlic as one of several vegetables with potential anticancer properties. Other than the most extreme, rare situations, he believes every person on the planet should consume garlic. It's extremely cost-effective, super easy to grow and tastes absolutely fantastic. So find out more about garlic benefits, garlic uses, garlic research, how to grow your own garlic and some great-tasting garlic recipes. As you are about to see, raw garlic benefits are plentiful. It can used as an effective form of plant-based medicine in many ways, including the following. According to the Centers for Disease Control and Prevention, heart disease is the No. 1 killer in the United States, followed by cancer. Garlic has been widely recognized as both a preventative agent and treatment of many cardiovascular and metabolic diseases, including atherosclerosis, hyperlipidemia, thrombosis, hypertension and diabetes. A scientific review of experimental and clinical studies of garlic benefits found that, overall, garlic consumption has significant cardio protective effects in both animal and human studies. Probably the most amazing characteristic of garlic is that it's been shown to help reverse early heart disease by removing plaque buildup in arteries. A 2016 randomized, double-blind study published in the *Journal of Nutrition* involved 55 patients, aged 40 to 75 years, who had been diagnosed with metabolic

syndrome. The results of the study showed that aged garlic extract effectively reduced plaque in coronary arteries (the arteries supplying blood to the heart) for patients with metabolic syndrome. One of the lead researchers, Matthew J. Budoff, M.D., said, “This study is another demonstration of the benefits of this supplement in reducing the accumulation of soft plaque and preventing the formation of new plaque in the arteries, which can cause heart disease. We have completed four randomized studies, and they have led us to conclude that Aged Garlic Extract can help slow the progression of atherosclerosis and reverse the early stages of heart disease.” Allium vegetables, especially garlic and onions, and their bioactive sulfur compounds are believed to have effects at each stage of cancer formation and affect many biological processes that modify cancer risk. In the words of the NIH National Cancer Institute, “Several population studies show an association between increased intake of garlic and reduced risk of certain cancers, including cancers of the stomach, colon, esophagus, pancreas, and breast.” It also includes an answer to a very key question: *How* can garlic act to prevent cancer? The National Cancer Institute explains that “protective effects from garlic may arise from its antibacterial properties or from its ability to block the formation of cancer-causing substances, halt the activation of cancer-causing substances, enhance DNA repair, reduce cell proliferation, or induce cell death.” A French study of 345 breast cancer patients found that increased garlic, onion and fiber consumption were associated with a statistically significant reduction in breast cancer risk. Another cancer that garlic has been specifically shown to positively affect is pancreatic cancer, one of the most deadly forms cancer. The good news is that scientific research has now shown that increased garlic consumption may reduce the risk of developing pancreatic cancer. A population-based study conducted in the San Francisco Bay area found that pancreatic cancer risk was 54 percent lower in people who ate larger amounts of garlic and onions compared with those who ate lower amounts. The study also showed that increasing the overall intake of vegetables and fruits may protect against developing pancreatic cancer. Garlic also shows promise when it comes to treating cancer. Garlic’s organo sulfur compounds, including DATS, DADS, ajoene, and S-allylmercaptocysteine (SAMC), have been found to induce cell cycle arrest when added to cancer cells during in vitro experiments. In addition, these sulfur compounds have been found to induce apoptosis (programmed cell death) when added to various cancer cell lines grown in culture. Taking liquid garlic extract and S-allylcysteine (SAC) orally has also been reported to increase cancer cell death in animal models of oral cancer. Overall, garlic clearly show some real potential as a cancer-fighting food that should not be ignored or discounted. An interesting phenomenon of garlic is that has been shown to help control high blood pressure. One study looked at the effect of aged garlic extract as an adjunct treatment for people already taking antihypertensive medication yet still having uncontrolled hypertension. Garlic showed itself to be highly effective once again. The study, published in the scientific journal *Maturitas*, evaluated 50 people with “uncontrollable” blood pressure. It was uncovered that simply taking four capsules of aged garlic extract (960 milligrams) daily for three months caused blood pressure to drop by an average of 10 points. Another study published in 2014 found that garlic has “the potential to lower BP in hypertensive individuals similarly to standard BP medication.” So garlic, specifically in the form of the standardizable and highly tolerable aged garlic extract for this study, could work just as well as prescription hypertension medications. This study further explains that garlic’s poly sulfides promote the opening or widening of blood vessels and, hence, blood pressure reduction(<https://draxe.com/7-raw-garlic-benefits-reversing-disease/>)

Bayan et. al (2014) told that throughout history, many different cultures have recognized the potential use of garlic for prevention and treatment of different diseases. Recent studies support the effects of garlic and its extracts in a wide range of applications. These studies raised the possibility of revival of garlic therapeutic values in different diseases. Different compounds in garlic are thought to reduce the risk for cardiovascular diseases, have anti-tumor and anti-microbial effects, and show benefit on high blood glucose concentration. However, the exact mechanism of all ingredients and their long-term effects are not fully understood. Further studies are needed to elucidate the patho physiological mechanisms of action of garlic as well as its efficacy and safety in treatment of various diseases.

Garlic (*Allium Sativum*) has been used for thousands of years for medicinal purposes. Sanskrit records show its medicinal used about 5,000 years ago, and it has been used for at least 3,000 years in Chinese medicine. The Egyptians, Babylonians, Greeks, and Romans used garlic for healing purposes. In 1858, Pasteur noted garlic’s antibacterial activity, and it was used as an antiseptic to prevent gangrene during World War I and World War II. Dietary factors play a key role in the development of various human diseases. Across cultures, there are many different dietary patterns which are believed to promote human health. Despite cultural differences, there are some shared characteristics of healthy dietary patterns. Perceiving plant foods as beneficial diet is advised by the folklore of many cultures over centuries. Garlic (*Allium Sativum* L.) has acquired a reputation in different traditions as a prophylactic as well as therapeutic medicinal plant. Garlic has played important dietary and medicinal roles throughout the history. Some of the earliest references to this medicinal plant were found in Avesta, a collection of Zoroastrian holy writings that was probably compiled during the sixth century BC (Dannesteter, 2003 ▶). Garlic has also played as an important medicine to Sumerian and the ancient Egyptians. There is some evidence that during the earliest Olympics in Greece, garlic was fed to the athletes for increasing

stamina (Lawson and Bauer, 1998 ▶). Ancient Chinese and Indian medicine recommended garlic to aid respiration and digestion and to treat leprosy and parasitic infestation (Rivlrm, 1998 ▶). In the medieval period, garlic was also played an important role in the treatment of different diseases. Avicenna (1988) ▶, in his well-known book, *Al Qanoon Fil Tib* (The Canon of Medicine), recommended garlic as a useful compound in treatment of arthritis, toothache, chronic cough, constipation, parasitic infestation, snake and insect bites, gynecologic diseases, as well as in infectious diseases (as antibiotic). With the onset of Renaissance, special attention was paid in Europe to the health benefits of garlic. Garlic has attracted particular attention of modern medicine because of widespread belief about its effects in maintaining good health. In some Western countries, the sale of garlic preparations ranks with those of leading prescription drugs. There is appreciable epidemiologic evidence that demonstrates therapeutic and preventive roles for garlic. Several experimental and clinical investigations suggest many favorable effects of garlic and its preparations. These effects have been largely attributed to *i*) reduction of risk factors for cardiovascular diseases, *ii*) reduction of cancer risk, *iii*) antioxidant effect, *iv*) antimicrobial effect, and *v*) enhancement of detoxification foreign compound and hepato protection (Colín-González, 2012 ▶; Aviello, 2009 ▶). In this review, a survey on current experimental as well as clinical state of knowledge about the preventive and therapeutic effects of garlic in different diseases is given. Garlic is a bulbous plant; grows up to 1.2 m in height. Garlic is easy to grow and can be grown in mild climates (Figure). There are different types or subspecies of garlic, most notably hardneck garlic and softneck garlic. Allicin (allyl 2-propenethiosulfinate or diallyl thiosulfinate) is the principal bioactive compound present in the aqueous extract of garlic or raw garlic homogenate. When garlic is chopped or crushed, allinase enzyme is activated and produce allicin from alliin (present in intact garlic). Other important compounds present in garlic homogenate are 1-propenyl allyl thiosulfonate, allyl methyl thiosulfonate, (E,Z)-4,5,9-trithiadodeca-1,6,11-triene 9-oxide (ajoene), and γ -L-glutamyl-S-alkyl-L-cysteine. The adenosine concentration increases several-fold as the homogenate is incubated at room temperature for several hours. Another widely studied garlic preparation is aged garlic extract. Sliced draw garlic stored in 15-20% ethanol for more than 1.5 year is refereed to aged garlic extract. This whole process is supposed to cause considerable loss of allicin and increased activity of certain newer compounds, such as S-allylcysteine, sallylmercaptocysteine, allixin, N-0-(Ideoxy-D-fructos-1-yl)-L-arginine, and selenium which are stable and significantly antioxidant. Medicinally used, garlic oil is mostly prepared by steam-distillation process. Steam-distilled garlic oil consists of the diallyl, allylmethyl, and dimethyl mono to hexa sulfides (Lawson and Bauer, 1998▶). Botanically, *Allium sativum* is a member of the Lillaceae family, along with onions, chives, and shallots (Iciek et al., 2009 ▶ ; Lanzotti, 2006 ▶). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103721/>

Geberselema (Sept,2013) told that garlic products are used as sources of medicine in many ways in human beings in their day today life. As a result, researchers from various disciplines are now directing their efforts towards discovering the medicinal values of garlic on human health. The main interest of researchers in the medicinal values of garlic is its broad spectrum therapeutic effect with minimal toxicity. Garlic extract has antimicrobial activity against many genera of bacteria, fungi and viruses. Garlic contains a higher concentration of sulfur compounds which are responsible for its medicinal effects. The chemical constituents of garlic have also been investigated for treatment of cardiovascular disease, cancer, diabetes, blood pressure, atherosclerosis and hyperlipidaemia and highly praised by several authors.

Einstein (2005) told that Garlic has long been used medicinally, most recently for its cardiovascular, antineoplastic, and antimicrobial properties. Sulfur compounds, including allicin, appear to be the active components in the root bulb of the garlic plant. Studies show significant but modest lipid-lowering effects and ant platelet activity. Significant blood pressure reduction is not consistently noted. There is some evidence for antineo plastic activity and insufficient evidence for clinical antimicrobial activity. Side effects generally are mild and uncommon. Garlic appears to have no effect on drug metabolism, but patients taking anticoagulants should be cautious. It seems prudent to stop taking high dosages of garlic seven to 10 days before surgery because garlic can prolong bleeding time.

Sanjay et. al studied that Garlic and its preparations have been widely recognized as agents for prevention and treatment of cardiovascular and other metabolic diseases, atherosclerosis, hyperlipidemia, thrombosis, hypertension and diabetes. Effectiveness of garlic in cardiovascular diseases was more encouraging in experimental studies, which prompted several clinical trials. Though many clinical trials showed a positive effect of garlic on almost all cardiovascular conditions mentioned above, however a number of negative studies have recently cast doubt on the efficacy of garlic specially its cholesterol lowering effect of garlic. It is a great challenge for scientists all over the world to make a proper use of garlic and enjoy its maximum beneficial effect as it is the cheapest way to prevent cardiovascular disease. This review has attempted to make a bridge the gap between experimental and clinical study and to discuss the possible mechanisms of such therapeutic actions of garlic. Epidemiological study shows an inverse correlation between garlic consumption and reduced risk of cardiovascular disease progression [180–182]. The wealth of scientific literature supports the proposal that garlic

consumption have significant cardio protective effect, which include both animal and human studies. But certain issues regarding the proper use of garlic, i.e use of different preparations available, dose, duration and interaction with generic drugs should be optimized. Further research should also be carried out to identify specific compounds from garlic or garlic products that are responsible for most of its biological effects.

4. CONCLUSIONS AND RECOMMENDATIONS

The study finally concluded that garlic is very useful medicinal plant which play key role in the control of heart diseases. It clean the vessels of the attires and decrease the level of blood pressure while sometime excessive use cause vomiting, heartburn etc The people who eat garlic, having less chances of blood pressure and heart disease. Garlic is the rich sources of vitamin B6, Vitamin C, sulfur compound, , calcium, iron, magnesium, phosphorous, potassium, sodium , zinc and manganese. Garlic reduce the severity of flue, common cold and gangrene . Similarly garlic decrease the LDL cholesterol in those who have high cholesterol level. It play key role in the control of colon cancer, rectal cancer, stomach cancer, breast cancer, prostate cancer, multiple myeloma, and lung cancer etc. It is also used for control of prostate cancer and bladder cancer. On the other side it decrease the risk of Alzheimer, dementia diseases and hyperlipidaemia. Similarly garlic decrease the sugar in human body and control the diabetes. Garlic improve physical performance in lab animals and people, with heart disease while also decrease the lead toxicity in the human body. Subsequently garlic was fed to the athletes for increasing stamina and used in toothache, chronic cough, constipation, parasitic infestation, snake, insect bites and gynecologic diseases. Garlic extract has antimicrobial activity against many genera of bacteria, fungi and viruses. The people use in multiple dishes as a flavor, as well as for the healthiness of hair. Similarly garlic spray is used for mosquitoes control in the world while also some time used for the control of harmful insects. It is also used in aphid control. Garlic excess consumption cause heartburn in human being while some time also cause vomiting, irritation, liver toxicity, nausea, Eczema, Dizziness, hyphema and gastro esophageal reflux diseases in human. The eating of garlic is prohibited for Asthma disease able persons and pregnant women while also prohibited in the time of any surgery because garlic can prolong the bleeding time. The study finally recommended that 3 cloves eating of garlic on daily basis is beneficial for human being while Doctor advised is required because sometime instead of benefits the garlic create allergy in the human body. Similarly many clinical trials investigated a positive effect of garlic on cardiovascular movement in the human heart, however few studies claimed the negative effect for cholesterol lowering. It is a great challenge for scientists all over the world to make a proper use of garlic and enjoy its maximum beneficial effect as it is the cheapest way to prevent cardiovascular disease. The study finally recommend that to increase its productivity in the study area and new research laboratories should be constructed for the chemical analysis of garlic, to practically analyze the situation for the solution of the problem.

5. ACKNOWLEDGEMENT



The idea was created by Dr.Naushad Khan Assistant Professor Institute of development Studies, The University of Agriculture Peshawar. He thought that garlic is very useful medicinal plant which play key role in the control of multiple diseases such as blood pressure, cancer, diabetes and heart. The artificial medicine is very costly and the people of the world majority are poor and they cannot afford the cost of the medicine while garlic price is less than those medicine. So the author tried to analyze the situation in the whole world and find the role of garlic in the control of different diseases particularly blood pressure diabetes. So 10 papers were downloaded from the net and also data collected from 100 respondents in the University campus of Peshawar about Garlic utilization. Dr.Naushad khan paid high tribute to University administration, to provide house facilities, in the campus. The author is belonging to developing country which is economically poor and per capita income is very low and cannot afford the charges of the paper. So he will appreciate the efforts of “INTERNATIONAL KNOWLEDGE SHARING PLATFORM” to quickly publish this paper at his Journal without charges in the next issue. The high tributes also goes to my wife Shazia who provide food during paper preparation. I also thank to Masood Khan S/O Ifthikhar Khan belongs to village Alo Qasmi District Mardan who helped me during paper proofreading. In the last run, I thanks to my Mother Zareen Jan and Father Bacha Khan, all teachers and brother Jamshed Khan who played great role in my career Development.

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