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A Critical Review of Charakokta Vishghana Mahakashaya as Antioxidant in Present Scenario

Dr. Amit Kumar[1], Dr. Jayanti Jain[2], Dr. Ritu Kapoor[3], Dr Manoj Adlakha[4]
[1, 2]*MD scholar,* [3]*Associate Professor & HOD, P.G Dept. Agad Tantra Evam Vyavahar Ayurveda, DSRRAU, Jodhpur, Rajasthan, India*
[4]*Associate Professor, P.G Dept, Dravya Guna Vinjana, DSRRAU, Jodhpur, Rajasthan, India*

Abstract: ***Visha is another name for a chemical that depresses society. Visha is a material that is harmful to life and has properties like Aniedeshyarasa/Apaki, Vyavayi, Vikasi, Ushna, Teekshna, Ruksha, And Asukar. Garavisha is the name for synthetic poison, krutrima visha. These Gara vishas, depending on their combinations. Gara vishas, depending on their combinations, can cause illnesses like Shopha (edoema), Pandu (anaemia), Udara (ascites), Unmada (psychological disturbance), Durnam (piles), etc. in the body. Dooshivisha is the term for Sthavara, Jangama, or Krutrima poisons that are not completely eliminated from the body and become dry due to digestion (metabolism), antitoxic formulation, exposure to heat, air, or sunlight, or when the aforementioned natural ten qualities of the poison become less potent. In the present study we will investigate and apply the concepts of Agad Tantra to many ailments and pathological conditions, including Garavisha & Dooshivisha, using antitoxic formulations like Charakokta Vishaghana Mahakashaya.***
Keywords: Visha, Garavisha, Dooshivisha, Vishaghana Mahakashaya.

I. INTRODUCTION

The clinical division of Astang Ayurveda known as Agad Tantra deals with the characteristics, diagnosis, and treatment of poisons under the headings of Sthavara (inanimate), Jangama (animate), Dushivisha (cumulative poison), and Garavisha (artificial poison). Visha is another name for a chemical that depresses society. [1]

Anything that has the potential to cause harm to a person when used improperly, by the incorrect person, or in the incorrect quantity is considered a poison. It can be found in four different forms: solids (like painkiller pills or tablets), liquids (like bleach-containing home cleansers), sprays (like cleaners), and gases (such as carbon monoxide). [2]

Visha is a material that is harmful to life and has properties like Aniedeshyarasa/Apaki, Vyavayi, Vikasi, Ushna, Teekshna, Ruksha, And Asukar. [3] Visha (poison), once it enters the body, disrupts the Dosha, Dhatu, And Mala (normal physiological functions) of the body and therefore worsens or ends life. The two main types of Visha are Akrutrima and Krutrim Visha. Dushivisha, Garavisha, and other types of Visha (manufactured poison) fall under the broad category of Kritrima Visha. Akrutrima visha are further divided into sthavara and Jangama Visha. [4]

II. REVIEW OF LITERATURE

A. Gara Visha (Concocted poison)

There are two categories of poisons: natural poisons (Akrutrima visha) and manmade poisons (Krutrima visha) (Artificial poison). Akrutrima visha is further subdivided in to two types Sthavara visha (Inanimate poison like plants and minerals) and Jangama visha (Animate poison). Garavisha is the name for synthetic poison, krutrima visha. These Gara vishas, depending on their combinations, can cause illnesses like Shopha (edoema), Pandu (anaemia), Udara (ascites), Unmada (psychological disturbance), Durnam (piles), etc. in the body[5]. According to Charaka Samhita, there is a third sort of poison called Gara that exists in addition to inanimate and animated poison. Gara is a poisonous concoction of elements that causes a number of illnesses. It does not immediately result in death; rather, its Vipaka (assimilation) is delayed. According to Chakrapani's commentary, there are two varieties of Gara Visha: the former is called gara visha and the latter is called Kritrima Visha[6]. The former is a combination of harmless chemicals and is known as Nirvisha Dravya Samyonga. Anemia, emaciation, anorexia, cough, breathing issues, fever, narcolepsy, depression, ascites, liver and spleen problems, a feeble or husky voice, debility, edoema, flatulence, slimming of the arms and legs, wasting condition, etc. are some of the symptoms of Garavisha. Somatic symptoms give place to psychological illnesses in the second stage. The dreamer experiences visions of foxes, cats, mongooses, dangerous creatures, monkeys, dry wells or pound, dry climber (plant) etc.

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Dark people mistakenly think they have a fair complexion, and vice versa. Patients could become fixated on the idea that their nose and face have vanished. Such or more severe physical and mental conditions could affect the patient[7-8]. Garavisha can be treated by using appropriate emetics or purgatives to induce emesis and purgation, eating a compatible diet, and using Tamra Bhasma with honey for Hrida Shuddhi. (Removal of poison from heart) and medication with Swarna Bhasma (Gold Bhasma)[9-10].

Currently, any drug that is synthetic or artificial in nature and damaging to the body directly or by its poisonous metabolites can be associated with gara visha. The world of the twenty-first century is filled with synthetics, and everyone residing in it is affected by artificial or synthetic substances. The term "Gara Visha" refers to a wide range of topics, including incompatible diets, food adulteration, preservatives, additives, and sweeteners that are used in foods, pesticides or agrochemicals found in cereals, vegetables, fruits, and milk, drug-induced toxicity (drugs taken in combination or indiscriminately, such as analgesics, antibiotics, anticonvulsants, oral contraceptives, etc.), occupational So, one of the causes of oxidative stress may be any of the domains covered by the Gara Visha idea.

B. Dooshivisha (Denatured or latent Poison)

Dooshivisha is the term for Sthavara, Jangama, or Krutrima poisons that are not completely eliminated from the body and become dry due to digestion (metabolism), antitoxic formulation, exposure to heat, air, or sunlight, or when the aforementioned natural ten qualities of the poison become less potent. It does not prove lethal for an individual due to its low potency. It spends several years in the body as it is engulfed by Kapha. Sleepiness, weight, yawning, a feeling of looseness in the joint, and body aches are Dooshivisha prodromal symptoms. Dooshivisha symptoms include loose stools (diarrhoea), a darkened complexion, an offensive mouth odour, an unpleasant mouth taste, unquenchable thirst, dizziness, vomiting, and stuttering speech, depression accompanied with symptoms of Dushyodara (chronic ascites). Dooshivisha causes diseases of Kapha-Vata when it is located in the stomach, whereas when it is located in the colon, it causes ailments of Vata-Pitta. Additionally, the patient exhibits signs like hair loss, an emaciated body, and a bird with its feathers and wings taken off. Dooshivisha's deeper penetration into Rasadi dhatus (body tissues) causes their derangement and consequent sickness, known in Ayurveda as Dhatuvikara. The negative impacts are made worse by exposure to cold and wind as well as cloudy days. If the aforementioned difficulties are also ignored, the patient experiences post-meal euphoria, indigestion, anorexia, urticaria, skin eruptions in circular patches, mental confusion, tissue degradation, edoema on the face and extremities, ascites, vomiting, diarrhoea, discolouration, and fatigue, fainting, irregular fever, unquenchable thirst. As it progresses, it leads to insanity, stuttering, decreased reproductive tissue functions, and flatulence. This causes a variety of illnesses, including widespread skin lesions[11-13].

The patient should undergo sudation as part of the treatment for Dooshivisha, which is followed by the induction of emesis and purgation. The goal of sudation is to transfer latent humours from Dhatus (body tissues) to the digestive system. They can be removed after being introduced to the gut by inducing emesis and purging. Dooshivishari Agada should be ingested when it has been finely ground and combined with extra honey[14]. People today are exposed to a variety of poisons, both natural and synthetic, whether they are aware of it or not. Low-grade artificially created toxins, known as Garavisha, enter the body and function as Dooshivisha. When the rate of exposure exceeds the rate of metabolism or excretion, storage of chemicals or toxins frequently happens. This idea of the body carrying a burden of poisons is explained by Ayurveda's Dooshivisha concept. Dooshivisha is less virulent than other viruses, therefore it doesn't cause any acute symptoms and can lay latent in the body for years. Low potency poisons can remain in the body for a long time and create diseases when they are exposed to triggering circumstances in the state known as Dooshivisha. The term "xenobiotic" refers to a foreign or synthetic agent, such as a medicine, food additive, pesticide, contaminant, etc., that is present in the body. Xenobiotics are those which can’t be broken down to generate energy or be assimilated into biosynthetic pathway. The concept of Apaki Guna (not being assimilated in the body) in poison explains mechanism of xenobiotics. Xenobiotics are also responsible for the oxidative stress in the body.

C. Concept Of Oxidative Stress And Antioxidants In Reference To Visha

The balance between oxidation and anti-oxidation is considered to be a key idea in contemporary western medicine for sustaining a healthy biological system[15]. A chemical process called oxidation can generate free radicals, which can set off a cascade that could harm cells. Free radicals are naturally occurring ions that are electrically charged and damage cells by rupturing their membranes. They are a byproduct of human metabolism. When they come into contact with the body's proteins, enzymes, and nucleic acids, they react and cause chaos.

Oxidative stress, which is the term for these free radical assaults, can eventually kill cells by causing them to lose their structure and function[16].

In the modern era, oxidative stress is elevated as a result of hazardous exposure to food, bad lifestyle choices, pollution, chemicals, and medicines. The primary cause of many human diseases, including cancer, heart disease, neurological problems, liver problems, kidney problems, infections, premature ageing, and others, is free radical-induced oxidative stress. Free radicals can be neutralised by antioxidants, which also reduces the likelihood of oxidative stress-related damage. A chemical known as an antioxidant prevents the oxidation of other molecules and guards against cell damage in the body. Enzymatic antioxidants and Non-enzymatic antioxidants are the two basic categories into which antioxidants are usually separated in living cells. Primary and secondary enzymatic defences are further separated from the enzymatic antioxidants. Three crucial enzymes that inhibit the creation of free radicals and neutralise them make up the body's first line of defence: glutathione peroxidase, catalase, and superoxide dismutase. Glutathione reductase and glucose-6-phosphate dehydrogenase, which enhance basic enzymatic defence antioxidants but do not directly eliminate free radicals, are included in the secondary defence. The primary vitamins (A, E, C), enzyme cofactors (Q10), minerals (zinc and selenium), peptides (glutathione), phenolic acids, and nitrogen compounds make up the majority of the non-enzymatic antioxidants subgroups (uric acid). The delicate equilibrium between antioxidants and free radicals must be kept in tact. In humans, for instance, upsetting this balance can lead to major health issues like cancer, cardiovascular and neurological illnesses, as well as early aging[17]. The major sources of antioxidants that guard against the damage caused by oxidative stress and free radicals are traditional herbal remedies and dietary items.

III. DRUG REVIEW

Numerous agada Yogas (formulations) with highly strong substances and quick acting are listed in Bruhatrayi as well as in traditional toxicological writings. Different medications listed in various Agadas combat poison by acting on vitiated Doshas, Dhatus, Malas, Srotas, and other elements that are affected by Visha. Acharya Charaka mentioned 500 dravyas in Panchashata Mahakashaya, which are divided into 50 categories, and ten antitoxic plants in Vishaghna Mahakashaya of the Charaka Samhita. These Mahakashaya groupings are grouped based on their Karma (Action). Each Mahakashaya group consists of ten Dravyas. Vishaghna Mahakashaya, one of the group, has antitoxic effect [18]. According to Chakrapani the word Vishaghna is defined as the substance which possesses the property to pacify the Visha (Toxin) and prevent the reoccurrence of toxic manifestations [19]. Along with Vishaghna Mahakashaya antitoxic.

Table 01: Ayurvedic Properties Of Vishaghna Mahakashaya.[20]

S. N.	VISHAGHNA DRUGS	BOTANICAL NAME &FAMILY	PROPETIES(RAS PANCHAK)	PARTSUSED	MEDICINAL USES
1.	Haridra (Turmeric)	Curcuma longa (Zingiberacae)	Rasa-Tikta, Katu; Guna-Ruksha; Virya-ushna; Vipaka-KatuKaphavatahara	Rhizome	Anti-inflammatory, Anti-oxidant, Antidiabetic, Cardio-Hepatoprotective, Antihistaminic,blood purifier, phytonutrient, Immunomodulator.
2.	Manjishtha (Indian Madder)	Rubia cordifolia (Rubiaceae)	Rasa-Madhur, Tikta, Katu;Guna-Guru; Virya-ushna; Vipaka-KatuKaphaghna	Root	Antimicrobial, blood purifier, Anti-inflammatory, Anti-oxidant, Astringent.
3.	Suvaha(Rasna)	Pluchea lanceolata (Compositae)	Rasa-Tikta; Guna-GurVirya-ushna; Vipaka-KatuVatakapha shamaka	Root, leaf wholeplant	Anti-inflammatory, Anodyne, Antipsoriatic.
4.	Ela(LesserCardamom)	Elettaria Cardamomum (Zingiberaceae)	Rasa-katu, Madhura; Guna-Laghu, Snigdha, Sugandhi,Sukshma; Virya-Shita; Vipaka-	Fruitand Seed	Antimicrobial, Antiseptic, Carminative, Antispasmodic, neutralize the insect

			MadhurKaphavataghna		bite and mildpoisons, Antitoxic.
5.	Palindi (Turpeth)	Operculina terpethum (Convolvulaceae)	Rasa-Katu, Tikta, Madhura, Kashaya; Guna-Guru, Ruksha, Teekshna; Virya-ushna;Vipaka-Katu Pitta Kapha Sanshodhana	Root	Anti-inflamatory, Antihelminthic, Purgative, Carminative Antihistaminic, Antisnake bite and scorpion sting.
6.	Chandan (Sandal wood)	Santalum album (Santalaceae)	Rasa-Tikta, Madhura; Guna-Laghu, Ruksha; Virya-Sheeta; Vipaka-KatuKaphapittashamaka	Wood	Diuretic, Antiseptic, Cooling, Bacteriostatic, Antitoxic, Deodorant, Tonic.
7.	Katak (Clearing nut)	Strychnos potatorum (Loganiaceae)	Rasa-Madhura, Kashaya, Tikta;Guna-Laghu; Virya-Shita; Vipaka-Madhur Vatakaphashamaka	Seeds	Antidiabetic, Anti-oxidant, Antimicrobial, Anti-inflamatory, Antiarthrtic.
8.	Shirisha (Shirisha)	Albizzia lebbeck (Leguminosae)	Rasa-Madhura, Tikta, Kashaya;Guna-Laghu; Virya-ushna; Vipaka-KatuTridoshaghna	Bark	Antiseptic, Antibacterial, Antiallergic, wound healer, Antisnake venom.
9.	Sindhuvaar (Five-leavedchaste)	Vitex negundo (Verbenaceae)	Rasa-Tikta Tikta; Guna-Laghu, Ruksha; Virya-ushna; Vipaka-KatuKaphvatshamaka	Leaves, roots, seeds and flowers	Anti-inflammatory, Anti-oxidant, Astringnet, Antidiarrhoel, Insecticidal, Antiseptic.
10.	Shleshmatak (Sebestan)	Cordia dichotoma (Boraginaceae)	Rasa-Madhura; Guna-Snigdha, Guru, Pichchila; Virya-ushna; Vipaka- Katu Vaatapittashamaka, Kaphavardhaka	Fruit	Diuretic, Antihelmintic, Antimicrobial, Anti-inflamatory, Demulscent.

IV. AIM OF THE STUDY

To study the impact of Charkokta Vishaghana Mahakashya as antioxident on Garvisha & Dooshivisha in the light of modern science.

V. DISCUSSION

All cells continuously produce free radicals during metabolism. Free radicals are harmless to the body when they are removed by the body to a certain extent, such as during appropriate physical activity. However, several risk factors, including alcohol, drugs, and environmental toxins, cause oxidative stress in the liver, which leads to a number of disorders. Antioxidants stop tissue damage brought on by free radicals. As antioxidants are categorised, their actions vary. Antioxidant enzymes break down and eliminate free radicals. Oxidative byproducts are transformed by enzymes into hydrogen peroxide (H2O2) and then water. The free radical chain reaction is broken by non-enzymatic antioxidants.

Small molecule antioxidants neutralise the reactive oxygen species and remove them during the radical scavenging process. Large-molecule antioxidants absorb free radicals and stop them from harming neighbouring healthy cells.

Antioxidants therefore operate as hepatoprotective in oxidative stress-induced hepatotoxicity through these mechanisms. Due to their potential and effectiveness, herbal antioxidants have recently caught the attention of researchers. Strong antioxidant and free radical scavenging properties are possessed by natural antioxidants found in food and medicinal plants. The aforementioned ten Vishaghna Dravyas have antioxidant and hepatoprotective properties.

All of the Vishaghna Dravyas listed in the table above own Shothaghna property. Even if Sariva (Hemidesmus Indicus) has demonstrably anti-inflammatory effects. Therefore, ten Dravyas in Table, coupled with Sariva, can be effective in managing Garavishajanya Shotha. Tridosha and Raktadushti vitiation is the primary cause of the etiopathogenesis of Garavishajanya Shotha. Tridohashamakas include Brahmi, Jati, Kadamba, Aparajita, Ativisha, Shirisha, And Shaliparni, whereas Raktashodhakas include Haridra, Manjistha. Therefore, the etiopathogenesis of Garavishajanya Shotha can be mitigated by these Dravyas. Tikta and Madhura Rasa include the majority of the Vishaghna Dravyas with hepatoprotective and antioxidant activities. These two Rasa are in possession of Vishaghna assets. Pittashamaka are Tikta and Madhura Rasa. Ashrayashrayi Sambandha is between Pitta and Rakta. Therefore, treatment for Pitta-related illnesses eventually serves to calm the Raktadushti. Given that Yakrita is Raktavahastrotas' Moolsthana, Vishaghna Dravyas' calming of Raktadushti also aids in improving Yakrita's functionality. Pittashamaka therapy may therefore be beneficial.

Haridra, Majistha, are Vishaghna Dravyas that are more potent in Vishaghna, Shothahar, Raktashodhaka, and Kapha-Pittashamaka. Haridra serves as Pittavirechaka as a result of Tikta Rasa. In particular, Manjistha affect Raktavahasrotasa. It calms vitiated Kapha-Pittadosha in Raktadhatu and Rakta becomes cleaned thanks to its Tikta, Kashaya, and Madhura Rasa (Raktashodhaka). Nimba's Tikta- Kashaya characteristics cause Yakrita (Yakrutottejana) to be stimulated. As a result, they can aid in reducing a significant pathogenic component of Garavishajanya vyadhis.

VI. CONCLUSION

Gara Visha (Concocted Poison) and Dooshi Visha (Denatured/Latent Poison) are concepts that are stressed in Ayurveda. The concepts of Gara visha and Dooshi visha are both related to oxidative stress. Diseases such as cancer, cardiovascular disorders, neurological disorders, liver disorders, renal disorders, psychological disorders, skin diseases, etc. are brought on by this unusual aetiology. Thus, traditional medications or treatments might not be effective for treating such diseases with unusual etiologies. It's time to investigate and apply the concepts of Agad Tantra to many ailments and pathological conditions, including poisoning, using antitoxic formulations like Charakokta Vishaghana Mahakashaya. This will help people live longer and in better health.

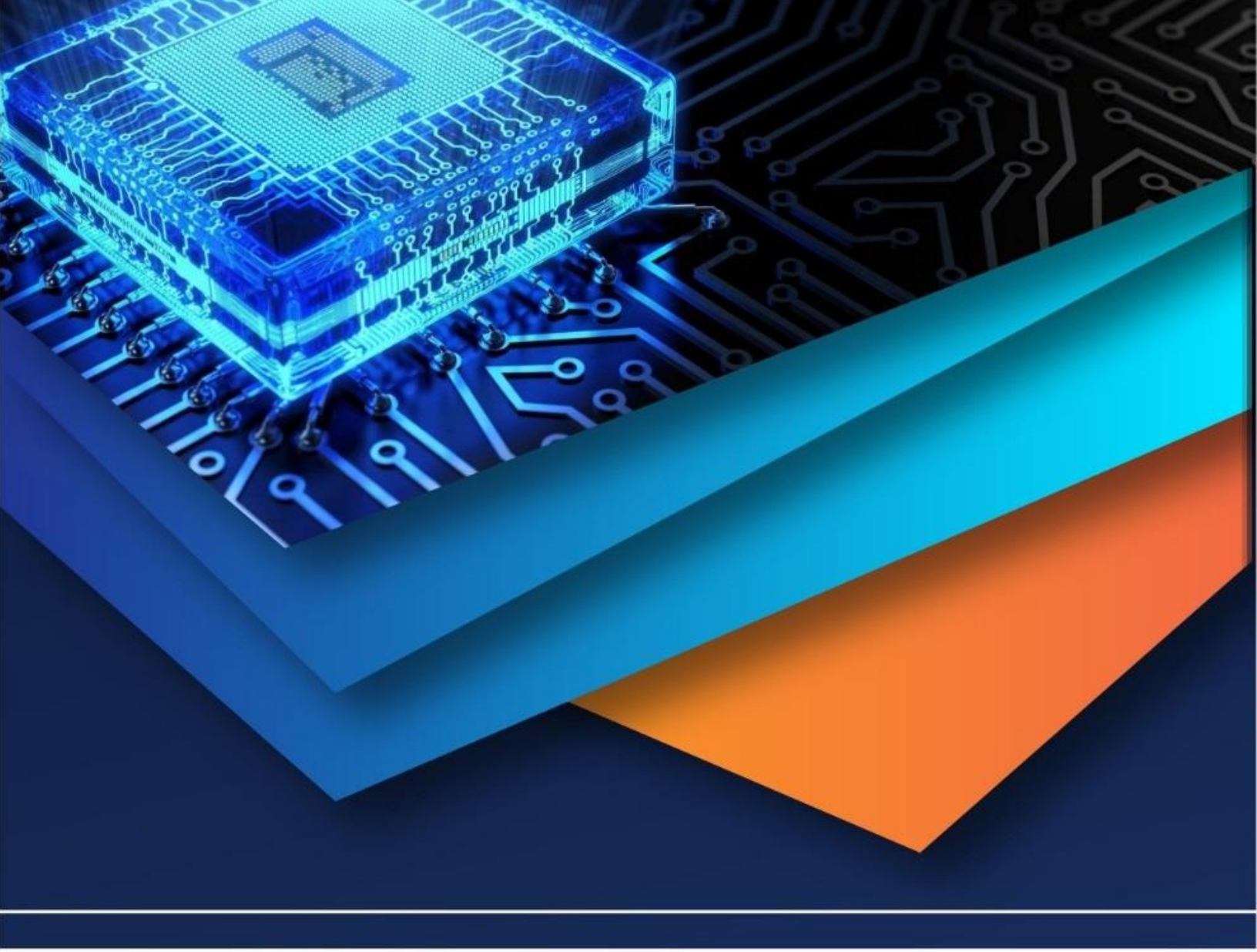
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