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Fresh Water Fish Channa Punctatus [Bloch, 1793] Its Biomedical Benefits for Human Beings

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ABSTRACT: *Channa punctatus is fresh water fish. It has pharmaceutical potential to prevent cardiac disorders, skin infections, diabetes etc. By lipid test profile, Analytical method, Chromatography method, Enzyme method, we found in Channa punctatus fatty acid, glycine, lysine, arachidonic acid, DHA, etc. Channa punctatus has be used as biomedical and nutraceutical products.*

KEYWORDS: biochemical properties, pharmaceutical potential.

INTRODUCTION

The Snake headed "Channa punctatus" we identified by Colour, Morphometric, Meristic, Juvenile stage and by Day Volume. The Channa punctatus is commonly called as Murrels in Maharashtra, India. It is fresh water fish and valuable food fish. It is predatory fish in the family Channidae, native to fresh water habitats in Asia wide natural distribution extending from Iraq in the West, to Indonesia and China in the east, and parts of Siberia in the far east. A particularly high richness of species exists in Myanmar [Burma] and North eastern India.

Fish is a Carnivorous and consumes fish, frog, insects, earthworm form the view point food sources, They are playing as the role of functional foods, which provide health benefit beyond basic nutrition. It is good source of medicinal food because it contains high level of Amino acid & fatty acids.

Fish also produce Pharmaceutical properties glycine, lysine, Arachidonic acid, DHA, EPA, TEG. Extracts of the fish are produced from muscle, skin and mucus of the fish. Channa punctatus extracts improve Kidney & Liver function, improve eye disorders, improve heart health

Biochemical Properties of Channa punctatus:-

Collection of Fishes

In the early morning fresh water fishes are collected from Ponds, Vishnupuri Dam, River Godavari, Nanded Maharashtra, India. With the help of fisher man. The fishes were transfer to College Lab, pathology Instute. By Lipid test Profile, Analytical method, chromatography method, enzyme method we found below properties.

The Channa punctatus fish useful source of proteins (22%) Lipids (2.05 $\pm$ 0.05%) Vitamin (0.250 $\pm$ 0.010) Channa punctatus have a high content of fatty acid, AA, DHA & it produce polysaturated fatty acid also. Fish indicate that useful for human diet and pharmaceuticals purpose.

Arachidonic acid [AA]

Arachidonic acid supplementation of the diets of healthy adults appears to offer no toxicity of significant safety risk. Arachidonic acid is not carcinogenic, and studies show dietary level is not associated (positively or negative) with risk of cancers. Therefore, the safety of arachidonic acid supplementation in patients suffering from cancer, inflammatory, or other diseased states is unknown, and supplementation is not recommended.

DHA- (omega-3 fatty acid)

DHA is commonly used for high levels of cholesterol or other fats (lipids) in the blood (hyperlipidemia). It is also used for boosting memory and thinking skills, for aiding infant and child development, for certain eye disorders. DHA plays a key role in the development of eye and nerve tissues. DHA may also reduce the risk of heart and circulatory disease by decreasing the thickness of the blood and lowering blood levels of triglycerides,

Glycine

Glycine is an amino acid with many impressive health benefits. Your body needs glycine to make important compounds, such as glutathione, creating and collagen. This amino acid may also protect your liver from alcohol induced damage and improve sleep quality and heart health.

Lysine

Its use for athletic performance, diabetes, and many others uses. It also reduces the risk of cardio vascular diseases.

Platelet aggregation:

Blood clotting problem in both heart and Diabetic patients. Channa puntatus [Snake headed] Extract induce aggregation in normal patients, but more effectively positive result in diabetic, Heart patients. Channa punctatus extract as a agent discovered that the Value of slitting point (sp), Reaction time (R), TEG index between treatment was highly significant.

Cardiovascular:
In Channa Punctatus Thromboxane biosynthesis is present (Omega-3 fatty acid) Skin extract from snakehead fish Cardio toxic factor Snakehead fish oil supplementation is widely regarded as an effective preventive measure against cardiovascular problems. AA [Arachidonic acid] present in Channa punctatus reduces coronary heart disease.

Antioxidant:
Fresh water fish Channa punctatus have more antioxidant activity, contributed by the amino acid and fatty acid

Skin Diseases:
In Tropical and Sub-tropical area most of people suffering from skin diseases, like pimples, sclerosis etc. Channa punctatus useful in these Circumstances and help patients as well support for the maintenance of healthy skin of the human beings.

Especially its action is due to the presence of docosahexaenoic[DHA] AA [Arachidonic acid] which are present in Channa punctatus. AA metabolism altered skin diseases. From fish oil [EPA, DHA] lead modulate prostaglandin metabolism and decrease the Symptoms of such disorders.

CONCLUSION

Channa punctatus have high nutrients which is more beneficial for human beings. It has pharmaceutical potential to treat or prevent Cardiac disorders, skin infection, diabetes etc. Snakeheads [Channa punctatus] are consumed in some regions as traditional medicine for wound healing and reducing post operative pain. Channa punctatus has a high potential to be used as a medicines & nutrients for the treatment of diseases as well as for the improvement of human health. Channa punctatus contains omega 3 & omega 6 PUFA which may represent as a important components in drug formulation for skin.

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