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Oxalis corniculata : Potential herb in treatment of diabetes

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Abstract

Traditional system of medicine encompasses a large number of plants with immense medicinal values which are now gaining extensive medical importance as herbal remedies for a large number of diseases and ailments because of their lesser side-effects and natural availability against synthetic drugs. The usage of herbal medicine in the treatment of diseases has been in practice in many developed and developing countries from eons ago which is now being emphasized scientifically. Modern pharmacopeia still contains at least 25% drugs derived from plants which have been designed similar to the compounds originally available in plants. Thus the plant based, herbal medicine system continues to play an important role in health management with more than 80% of the world population relying on traditional medicine for their primary health care. India is endowed with a rich plethora of plants many of which possess high medicinal value.

Scientific investigation to prove the α-amylase inhibitory potential of Oxalis corniculata is being done by performing sequential solvent extraction of the leaves of the plant. The cold water extract has shown a maximum α-amylase inhibitory potential and is chosen for further purification by ammonium sulfate precipitation (60-80% fraction) and then dialyzed for 48hrs. The dialyzed samples that exhibited α-amylase inhibitory potential are then purified by Ion exchange chromatography using DEAE cellulose. The fractions collected also exhibited potential α-amylase inhibitory potential against starch as substrate. Further research is now being carried out for purification and isolation of novel α-amylase inhibitor from the plant.

Biography

Ms. K.S.N.Jyothi has completed her M.Sc in Biochemistry from Osmania University and is pursuing her Phd in Biotechnology from Acharya Nagarjuna University; Guntur .She has over 10 years of teaching experience in the field of Biotechnology and has guided many PG students in their research projects on Medicinal plants. Her keen interest in the field of traditional and herbal medicine made her select the scientific analysis and amylase inhibitor isolation from medicinal plants as her topic of research and she has two publications in International journal of Green Pharmacy and International journal of Natural products and plant resources, both depicting her work on medicinal plants.