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Editorial

The gout: An Innovation of MTVD in permanent cure

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1. Introduction

Gout in simple terms would be defined as the commonest and most complex form of inflammatory arthritis caused due to the deposition of too much of uric acid in blood stream and accumulation of this urate crystals in tissues of joints especially lower limbs most often in big toe, causing severe and recurrent attacks of pain, redness,tenderness as well as swelling of the affected joint.[1] Gout may result in severe complications such as tophus, kidney damage and erosion of the affected joint.

2. Background

Consumption of purine rich foods such as red meat, scallops, sardines, tuna as well as alcoholic beverages could elevate the levels of uric acid in main bloodstream and result in gout.[2] The enzyme which is responsible for production of uric acid in our body is xanthine oxidase.[3,4]

Due to higher level of uric acid in our blood the condition known as hyperuricemia , there are major chances of uric acid to undergo crystallization. Crystal formed are known as Monosodium urate crystal in the form of salts.Monosodium urate crystals get deposited in the affected joint tendons, fluids and surrounding tissue. As a result deposited MSU crystals leads to signs and symptoms of gout attack.

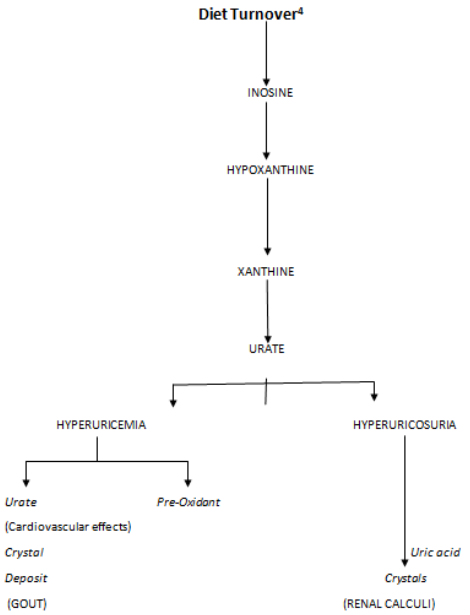

Fig. 1:

The most common signs and symptoms of gout observed involves swelling of joint, redness of joint ,effusion of joint as well as limited range of motion.[5] There would be signs of heat in the affected area. Also there would be late complications of gout that is goutytophi which are nodular

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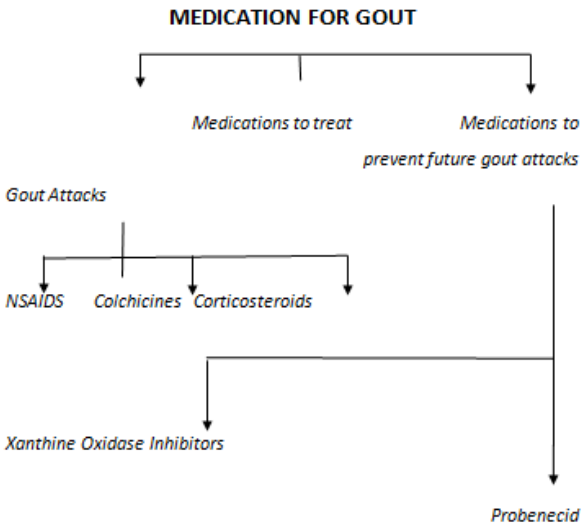

Fig. 2:

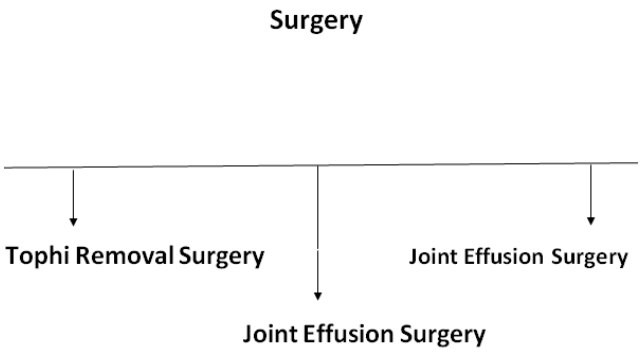

Fig. 3:

masses of monosodium urate crystals deposited in soft tissues of the body. The chronic tophaceous gout are also known as Harrison Syndrome.There would be sometimes certain onset of gout pain in the affected joint.Gout pain is very intense and usually subsides within hour to days in rarecases it could last weeks, with or without the involvement of medication. Persons suffering from gout will experience this symptoms repeatedly over years.

3. Treatment

3.1. 3 (A) Medication

Since gout have no treatment to cure permanently the initial aim of the treatment should be to settle the symptoms of an acute gout attack.[6] The aim should be to reduce inflammation of the affected area and gout pain. The medication which are commonly used to treat gout attacks are as followed;-

3.2. (1) The medication which are commonly used to treat gout attacks are

1. Naproxen, Ketoprofen, Ibuprofen, Celecoxib and Aspirincomes under Non Steroidal anti-inflammatory drugs, which usually have risk of stomach ulcers and bleeding usually it is advisable to have H2 antagonist while consumption of any NSAIDS.
2. Colchicineare also known to be very effective in reducing Gout pain and inflammation for prevention of Uric acid to formMonosodium urate crystals in our body.
3. Corticosteroid such asPrednisolone ,Dexamethasoneare usually very effective in controlling gout pain and reduce the inflammation of affected joint . Corticosteroids used for prolonged periods could have some serious side effects.

3.3. (2) The medications which are used to prevent future gout attacks are

1. Xanthine oxidase inhibitors are those drugs which helps in limiting the levels of uric acid in our body and thus prevent gout attacks. The drugs involved are Febuxostat and Allopurinol. The common side effects of served after consumption of these drugs are rash fever and nausea.
2. Probenecid (probalan) are those class of drugs which removes the excess uric acid from my body. This also improves and helps the kidney to maintain proper uric acid balance of our body. The common side effects observed are kidney stones and rashes.[7].

3.4. (3) (B) Surgery

1. Large tophi should be removed surgically to prevent loss of range of motion and further damage to any affected joint. It could be done by making a small incision above the tophus and removing it by hand. Sometimes tophi could become painful, inflamed as well as infected.When gout progress in its advanced stages, it could permanently damage the affected joint.
2. Joint effusion surgery would bring the smaller affected joint to get fused together which will relieve pain and bring joint stability.
3. Sometimes due to major damage of the affected joint it could be replaced with an artificial joint by the surgical procedure known as Joint Replacement Surgery[7,8] .

4. Innovation

4.1. Is there any cure for gout?

Gout can never be cured permanently it could only be controlled by medications to lower the increased uric acid levels in our body. I have studied, worked and researched in this deliberating painful condition and have developed a hypothetical cure which could treat gout permanently. I have invented and designed a technology named asMOLUMA'S Tech-vacuum device,an innovation which could set many people pain free from this painful form of inflammatory arthritis. MOLUMA'S Tech-vacuum device is designed on the basis of modern an advanced engineering technology which would be able to remove all the mono sodium urate crystals deposits from the affected joint. MOLUMA'S Tech-vacuum device have to be placed at 175 degrees to ensure proper removal of MSUcrystals deposits from the affected joint. MTVD is being more developed so that it could treat other similar painful condition with it's basic principles and technology.

5. Conclusions

I believe we need more development and research in our pre existing technology which could further elevate our quality of health care system by curing many adverse health conditions which have no proper cure. This incurable should be the major challenges for all researchers across the world so that there could come a possible era where every disease will have a permanent cure, and people could lead their rest of the lives healthy ,happy and prosperously.

6. Source of Funding

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7. Conflict of interest

None.

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