



GOUT MANAGEMENT: CASE REPORT

Clinical Research

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ABSTRACT

Gout is a painful disease and can significantly affect a patient's quality of life. Treatment of acute gout must be initiated promptly. In patients with recurrent gout, providers must discuss diet and medication to prevent future attacks. Gout is a type of arthritis. It results from an excess of uric acid in the blood and tissues of the body, which if present for long enough, can form into needle-like crystals which can inflame your joints and cause severe pain and swelling. If you have gout, it is important to get the right treatment with medication along with diet to relieve your suffering as quickly as possible. You will then be able to get on with your everyday life and reduce the likelihood of suffering further painful attacks. Despite advances in the understanding and management of gout, patients continue to incur debilitating disease. Patient education and better provider-patient communication are imperative for successful management.

KEYWORDS

Gout, Arthritis, Crystals

Introduction

Gout, or monosodium urate crystal deposition disease, is the most common inflammatory arthropathy. Its induction is a result of serum urate (UA) levels exceeding 6.8 mg/dL. Once urate in the extracellular fluid exceeds this level, it is considered supersaturated, and the risk of depositing uric acid as monosodium urate crystals in joints and soft tissue increases. Gout is one of the most painful forms of arthritis. It occurs when too much uric acid builds up in the body. The buildup of uric acid can lead to:

- Sharp uric acid crystal deposits in joints, often in the big toe
- Deposits of uric acid that look like lumps under the skin
- Kidney stones from uric acid crystals in the kidneys.

For many people, the first attack of gout occurs in the big toe. Often, the attack wakes a person from sleep. The toe is very sore, red, warm, and swollen. Gout is a type of arthritis. It occurs when uric acid builds up in blood and causes inflammation in the joints.

Gout is caused by a chemical in the blood called uric acid. Uric acid is usually harmless and is made in the body. Most is passed out with the urine and some from the gut with the stools. In people with gout, the amount of uric acid in the blood builds up. From time to time the level may become too high and tiny grit-like crystals of uric acid may form. The crystals typically collect in a joint. The crystals irritate the tissues in the joint to cause inflammation, swelling and pain - a gout attack.

Causes

- Heavy alcohol consumption, especially beer
- A diet high in purine foods, such as seafood, meat & meat organs
- Extremely low calorie diets
- Regular aspirin use
- Drinks high in fructose linked to gout risk
- Regular use of diuretic medicines

Treatment

- Raise and rest your limb
- Do not do vigorous exercise
- Keep the joint cool, apply an ice pack or bag of frozen vegetables wrapped in a towel. Do not apply directly to your skin without a towel as this could damage your skin

Tests

- Synovial fluid analysis (shows uric acid crystals)
- Uric acid - blood
- Joint x-rays (may be normal)
- Synovial biopsy
- Uric acid - urine

Diet and lifestyle changes may help prevent gout

- Decrease alcohol, especially beer
- Lose weight
- Exercise daily

- Limit your intake of red meat and sugary beverages
- Choose healthy foods such as dairy products, vegetables, nuts, legumes, fruits (less sugary ones), and whole grains
- Drink coffee and take vitamin C supplements
- If you are overweight, try to lose some weight. This can help to lower the uric acid level
- Avoid lack of fluid in the body (dehydration) by drinking plenty of water up to two litres per day

History of present illness: A 52 years male patient K/C/O gout since 1992 on regular medication and treatment comes with worsening of pain and swelling over multiple joints since two weeks. Newly diagnosed hypertension one week back and septic for elbow since 1995. History of surgery for left elbow in 1995. Aggravated since three days, with restricted mobility and pain. Associated skin peeling, swelling and discharge from wound over left elbow since three days. Associated with low grade fever, mild pain in left inguinal region since one week. Family history nothing significant.

General physical examination

Pallor	- Negative	Cyanosis	- Negative
Clubbing	- Negative	Edema	- Negative

Vital Data

Blood pressure	- 120/80 mmHg	Pulse	- 71 beats/min
Temp	- Afebrile	RR	- 18 cycles/min
GRBS	- 88 mg/dl		

SUBJECTIVE DATA

Appetite	- Normal	Thirst	- Normal
Bowel	- Normal	Sleep	- Normal
Type of diet	- Non - vegetarian		

DIAGNOSIS: Acute severe gouty arthritis, left elbow septic arthritis, HTN

MEDICATION HISTORY

MEDICINE	DOSE	FREQUENCY	PURPOSE
Inj Pantadoc	40 mg	1-0-1	Antacid
Inj Emeset	4 mg	S-O-S	To stop vomiting
Inj Peralgan	1 gm	S-O-S	Pain killer
Tab HI Fenac - P		1-0-1	Analgesic & antipyretic
Tab Febutaz	80 mg	1-0-0	To lower uric acid level
Tab Colchicine	0.5 mg	1-0-0	Anti inflammatory

ANTHROPOMETRIC DATA

Height	- 167 cm
Current body weight	- 60 kg
Ideal body weight	- 67 kg
Body mass index	- 21.58 kg/m ²

GOAL OF MEDICAL NUTRITION THERAPY

- To prevent uric acid accumulation and further complications
- Optimal wound healing and rapid recovery from symptoms
- Minimize complications including infection
- To minimize the metabolic disturbances during the treatment
- The nutrition plan must be compatible with other treatment

NUTRITIONAL REQUIREMENT

Energy	- 1600 Kcal
Protein	- 45 gm
Fat	- 35.55 gm
CHO	- 240 gm

DISCHARGE MEDICATION

MEDICINE	DOSE	FREQUENCY	PURPOSE
Tab Hifenac – P		1-0-1	Analgesic and antipyretic
Tab Pantadoc	40 mg	1-0-0	Antacid
Tab Febutaz	80 mg	1-0-0	To lower uric acid level
Tab Colchicine	5 mg	1-0-1	Anti inflammatory

Conclusion

Patient is 52 yr old male, admitted with above mentioned complaints. He was evaluated thoroughly, whole abdomen revealed. Fatty change in liver is seen. Bilateral Grade I nephropathy with non obstructing calculi. Right knee X-ray showed features suggestive of secondary osteoarthritis changes in right knee. X- ray right foot showed features suggestive of rheumatoid arthritic changes. X- ray of both elbow joints showed normal. Patient discharged in stable condition with surgical wound clear and with prescribed low salt low protein diet.

Points to remember

- Gout can be suspected by the typical episodic arthritis and diagnosed accurately by identifying the characteristic crystals in the fluid in joints.
- People with chronic gout often require lifetime treatment with drugs to lower uric acid levels.
- Lifestyle changes such as controlling weight, limiting alcohol consumption, and limiting meals with meats and fish rich in purines also can be helpful in controlling gout.

References

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