

## Importance of Serum Calcium and Uric Acid Levels in the Management of Neuromuscular and Skeletal Pains

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Calcium deficiency and raised uric acid levels are well known etiological factor for low backache, Dorsal and cervical pains. There is increasing trend of decreased intake of milk in females due to various reasons which includes fear of gaining weight in younger girls and increasing use of tea instead of milk in elderly ladies and poverty. Similarly if feeding mothers are not drinking adequate milk it may leads to calcium deficiency. After the age of 40 years decreased estrogen level and other metabolic changes are responsible for osteomalacia in females.

Calcium deficiency is found in both genders due to decreased intake, decreased absorption or metabolic disturbance of vitamen D and calcium or defective mineralization of bones. The article of Dr Mumtaz Ali et al for Peshawar, published in 2007 in our journal has high lighted the impotances of serum calcium in neurosurgical practice.<sup>1</sup>

Now there is lot of stress regarding calcium deficiency (Osteomalacia) in the patients of neuromuscular and skeletal aches.

Another important factor responsible for skeletal and joint pains is increased serum level of uric acid (gout).Uric acid forms crystals in the joints and causes

pain in muscles and joints. Low backache, Neck pain and mutiple joints pains are the commonest presentation of raised uric acid level in the blood. The aetiological factors for raised uric acid level includes increasing use of meat in the diet, use of diuretics, decrease intake of water impaired metabolism of uric acid in the body. The incidence of raised serum uric acid is probably increasing day by day more in males.

Thus if we advice simple tests like complte examination of blood, ESR, serum calcium and serum uric acid, we can save lot of money of many patients by avoiding other fancy and expansive investigation like MRI for proper diagnosis. These patients can be treated by drugs, preventive measures (Dietry adjustment) Hence it is recommened that all cases of sketelal and muscular pain must be investigated for above mentioned test and proper treatment. A study is being conducted in our department at PGMI / LGH Lahore result will be published soon.

### REFERNCES

1. ALI M, Khan Y, Shams, Ayub S, Jehan S. Osteomalacia in Neurosurgical practice – A Review of 32 Cases. Pak. J. of Neurol. Surg., 2007; 11: 51-56.