



## Correspondence

### Paget's Disease in Diabetic Subjects

Sir,

Paget's disease or osteitis deformans is a chronic disorder of unknown etiology, resulting in replacement of compact bone by vascular spongy bone due to excessive breakdown and formation of disorganized bone tissue. The probable causes are abnormal gene expression or viral infection. Paget's disease is diagnosed on the basis of radiological evidence (X-rays and bone scan) and biochemical parameters (elevated serum alkaline phosphatase levels). Paget's disease is more prevalent in Western countries where the prevalence is around 3 in people over 40 years of age and the male to female ratio is 3:2. It is considered to be rare in Asian countries.<sup>1</sup>

An earlier study on Paget's disease revealed that the prevalence of diabetes among affected individuals was lower when compared to those unaffected with Paget's disease.<sup>2</sup> However, both diabetes mellitus and Paget's disease are metabolic disorders. Evidences suggests that bone metabolism is altered in diabetic subjects. Although, there is no literary documentation of any association between these two disorders, both the diseases have been hypothesized to have an immunological and genetic basis. In our clinical practice, we observed that many diabetic patients visiting our centre, had unexplained elevated levels of serum alkaline phosphatase (ALP). Hence, we conducted a retrospective study to assess the prevalence of Paget's disease among diabetic subjects registered at our centre in order to evaluate any presence of any association between the two diseases. The study protocol is outlined in Fig. 1.

Out of 28732 (18930 males and 9802 females)

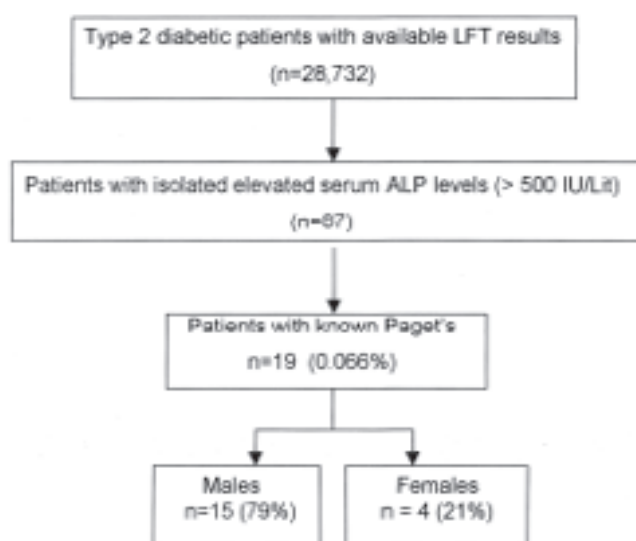


Fig. 1 : Schematic diagram depicting the study protocol.

consecutive diabetic patients who had liver function tests (LFT) done at our centre, 298 (198 males and 100 females) had ALP levels  $>500$  IU/L (the normal value for ALP in our lab is 350 IU/L). Of these 298 patients, 87 (60 males and 27 females) had isolated elevated serum ALP levels with no other abnormal biochemical changes in LFT. On reviewing the case details of these 87 subjects, 19 (15 males and 4 females) were found to be known cases of Paget's disease undergoing treatment for the same. These patients were diagnosed by an endocrinologist to have Paget's disease on basis of persistently elevated serum ALP levels, X-rays and bone scans. These confirmed cases have been treated with Inj. Palmidronate and are being followed up by the endocrinologist and they are doing well. The prevalence of known Paget's disease in the total diabetic population visiting our center is therefore,  $19/28732$  (0.066%), which includes 79% males (n=15) and 21% females (n=4). While categorizing according to age, it was interesting to note that all the subjects with known Paget's disease were above 50 years of age.

Though the remaining 68 patients (45 males and 23 females) with elevated ALP levels had no further investigations to confirm Paget's, one cannot rule out the possibility that some of them may be affected by Paget's disease. Other causes of isolated elevated serum alkaline phosphatase levels include chronic active hepatitis, obstructive jaundice, pregnancy, bone disease, drug toxicity and inflammatory bowel disease. However, none of these patients had any clinical evidence of these conditions.

We would like to suggest that the Paget's disease of the bone should be looked for in elderly diabetic patients, especially in those who have isolated elevation of serum ALP levels.

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### Greater Auricular Nerve Abscess in Borderline Tuberculoid Leprosy Masquerading as Jugular Vein Thrombosis

Sir,

Leprosy is a unique infectious disease with wide spectrum of signs and symptoms. It is a great mimicker.