A 79 year-old man with a history of anemia and generalized bone pain was referred for bone scanning. Posterior total body projection images showed a photon deficient area in the pelvis (fig. 1), which was not present in anterior views. Subsequently, anterior and posterior spot views of pelvis were obtained, which revealed the same finding (fig. 1).

Horizontal images of computed tomography (CT) (fig. 2) showed a mass in the retrovesical region consistent with fecal impaction in rectum (posterior to the bladder). The zone of absent radiotracer activity in posterior projection images of the pelvis was attributed to attenuation of gamma rays by impacted fecal materials.

DISCUSSION

There are numerous reports concerning different causes of photopenic areas in bone scan. Attenuation of gamma rays by metallic objects of cloths, prosthetic devices and coins has been described previously. However as to our knowledge, there is no previous report concerning the issue of attenuation of gamma rays by fecal impaction material. In our presented
case, the patient had been underwent barium enema two days ago, which could be considered as a precipitating factor for his fecal impaction. Also the patient suffered from few months of defecation and urination disabilities following his last cerebrovascular accident. The findings were confirmed by the observation of fecal impaction in the pelvic CT.

Reporting of these incidental findings could be important and sometimes can be resulted in determining previously unknown pathologies. The case we present emphasizes that fecal impaction can induce remarkable attenuation with subsequent cold pelvic areas on bone scan. However, this pattern is extremely a rare finding.

REFERENCES