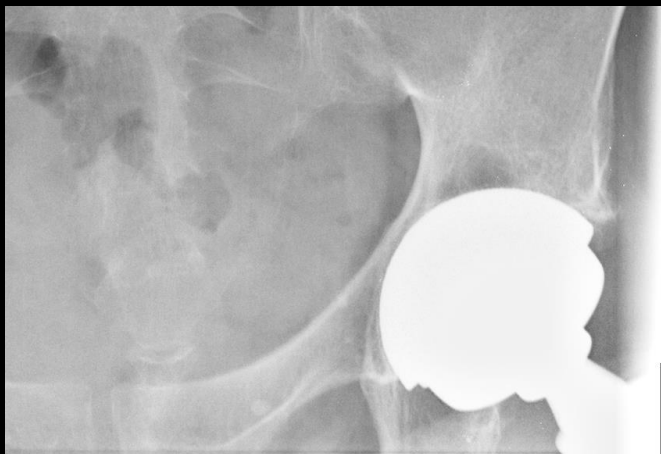


86F with left hip pain

8/11/09



+2y

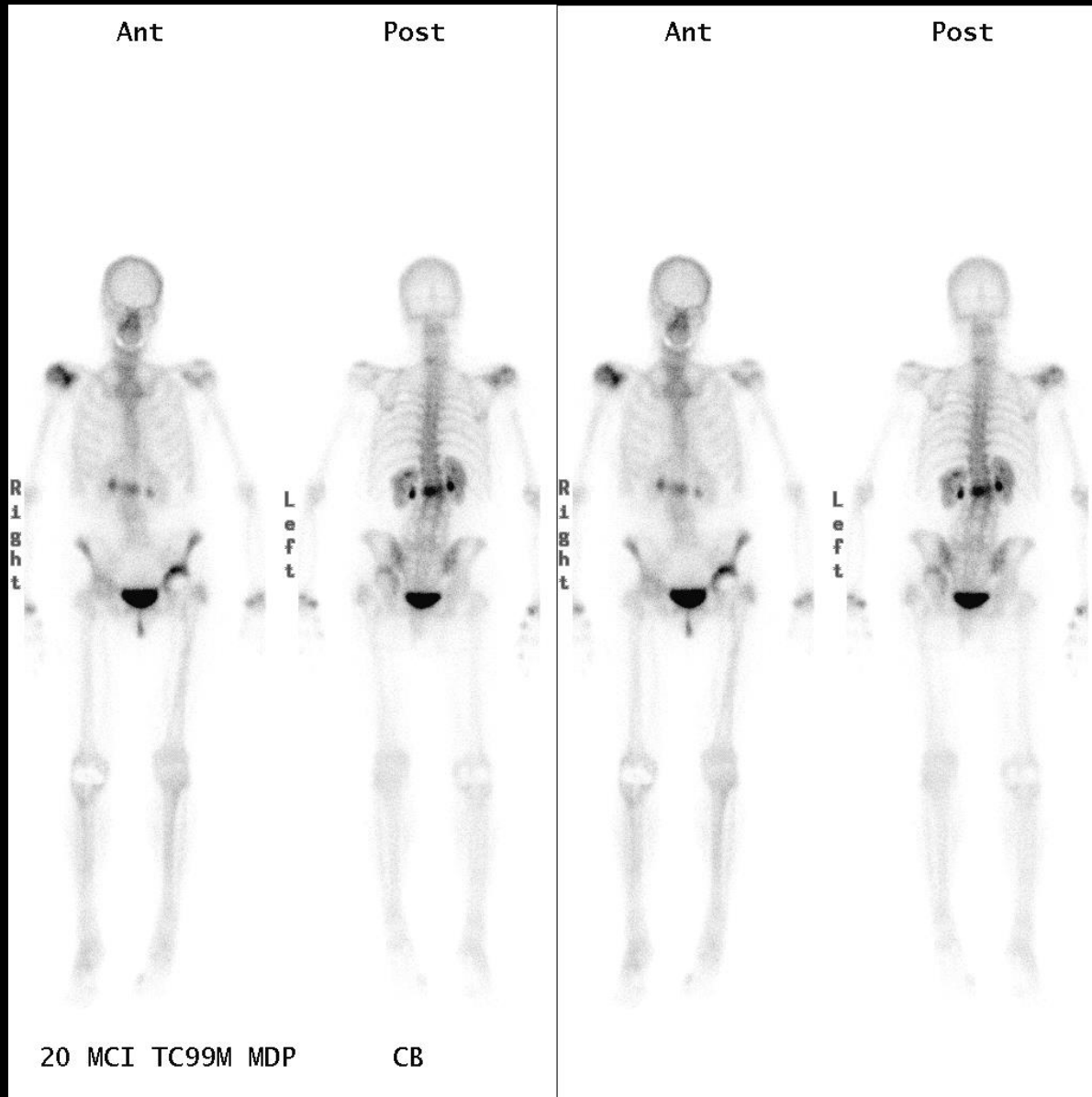


+3y



+3.5y

2/19/14

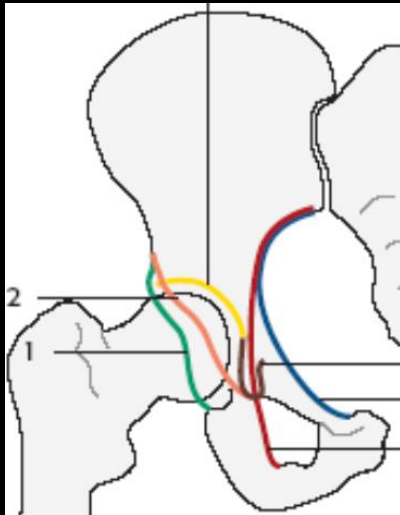


Protrusio acetabuli prosthetica

(Acetabular prosthesis protrusion)

Definition

- ▣ Form of hip replacement failure in which intrapelvic component migration occurs.
- ▣ Degrees are determined by
 - (1) prosthetic migration medial to the ilioischial line
 - (2) integrity of the medial acetabular wall



Ilioischial line (posterior)

Iliopectineal line (anterior)

Teardrop

Roof

Anterior wall of the acetabulum

Posterior wall of the acetabulum

Predisposing Factors

- ▣ Infection (most common cause)
- ▣ Multiple hip prosthesis revision
- ▣ Overreaming
- ▣ Multiple pelvic perforations
- ▣ Osteopenic bone
- ▣ Trauma
- ▣ Heredity or acquired bone deficiency states
- ▣ Overactivity
- ▣ Hypertrophic membrane formation

Associated with Infection

- ▣ 3 cases in 2007 reported intrapelvic acetabular protrusion of hip prosthesis in acute and chronic sepsis
 - All women
 - All left hip
 - 2 did well with revision
 - 1 resulted with Girdlestone arthroplasty

- ▣ Literature review demonstrated a high frequency of infection when there is intrapelvic migration of an acetabular prosthesis

Complication

- ▣ Anatomical impingement of vital structures inside the pelvis, such as the external iliac vessels and the femoral nerve.

Clinical presentation

- ▣ Pain and visceral complications.
- ▣ Vascular injury
- ▣ Hematoma
- ▣ Nerve palsy
- ▣ Fistula from the hip to the intrapelvic viscera
- ▣ Compression of the bladder, ureters, and vagina and clinical features of dyspareunia and gross hematuria

Surgical Challenge

- ▣ Technically challenging to remove
 - Intrapelvic approach is often needed to safely remove the prosthesis
- ▣ ?combined with the standard lateral approach
(patient with pelvic mass ended up with a laparotomy with transperitoneal approach to remove the components)
- ▣ Will need to have a skilled general surgeon as part of the surgical team.

Treatment

- ▣ Reestablishment of the radiographically determined anatomic position of the acetabulum
- ▣ Construction of a medial prosthetic or biologic buttress.
 - Recent techniques of biologic medial-wall formation utilize either allograft or autograft bone in one of three configurations--bulk, chipped or pulverized.
- ▣ Recent reports also favor the use of saddle prosthesis
- ▣ Severe intrapelvic hip protrusion may result in resection arthroplasty (Girdlestone arthroplasty)

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