PREOPERATIVE DIAGNOSIS:, Closed displaced probable pathological fracture, basicervical femoral neck, left hip.,POSTOPERATIVE DIAGNOSIS: , Closed displaced probable pathological fracture, basicervical femoral neck, left hip.,PROCEDURES PERFORMED:,1. Left hip cemented hemiarthroplasty.,2. Biopsy of the tissue from the fracture site and resected femoral head sent to the pathology for further assessment.,IMPLANTS USED:,1. DePuy Ultima calcar stem, size 3 x 45.,2. Bipolar head 28 x 43.,3. Head with +0 neck length.,4. Distal centralizer and cement restrictor.,5. SmartSet antibiotic cement x2.,ANESTHESIA: , General.,NEEDLE AND SPONGE COUNT: , Correct.,COMPLICATIONS: ,None.,ESTIMATED BLOOD LOSS: , 300 mL.,SPECIMEN: , Resected femoral head and tissue from the fracture site as well as the marrow from the canal.,FINDINGS: ,On exposure, the fracture was noted to be basicervical pattern with no presence of calcar about the lesser trochanter. The lesser trochanter was intact. The fracture site was noted to show abnormal pathological tissue with grayish discoloration. The quality of the bone was also pathologically abnormal with soft trabecular bone. The abnormal pathological tissues were sent along with the femoral head to pathology for assessment. Articular cartilage of the acetabulum was intact and well preserved.,INDICATION: , The patient is a 53-year-old female with a history of malignant melanoma, who apparently had severe pain in her left lower extremity and was noted to have a basicervical femoral neck fracture. She denied any history of fall or trauma. The presentation was consistent with

pathological fracture pending tissue assessment. Indication, risks, and benefits were discussed. Treatment options were reviewed. No guarantees have been made or implied.,PROCEDURE: ,The patient was brought to the operating room and once an adequate general anesthesia was achieved, she was positioned on a pegboard with the left side up. The left lower extremity was prepped and draped in a standard sterile fashion. Time-out procedure was called. Antibiotics were infused.,A standard posterolateral approach was made. Subcutaneous dissection was performed and the dissection was carried down to expose the fascia of the gluteus maximus. This was then incised along the line of the incision. Hemostasis was achieved. Charnley retractor was positioned. The trochanter was intact. The gluteus medius was well protected with retractor. The piriformis and minimus junction was identified. The minimus was also reflected along with the medius. Using Bovie and knife, the piriformis and external rotators were detached from its trochanteric insertion. Similarly, L-shaped capsulotomy was performed. A #5 Ethibond was utilized to tag the piriformis and the capsule for late repair. Fracture site was exposed. The femoral neck fracture was noted to be very low-lying basicervical type. Femoral head was retrieved without any difficulty with the help of a corkscrew. The head size was measured to be 43 mm. Bony fragments were removed. The acetabular socket was thoroughly irrigated. A 43-mm bipolar trial head was inserted and this was noted to give a satisfactory fit with good stability. The specimens submitted to pathology included the resected

femoral head and the tissue at the fracture site, which was abnormal with grayish discoloration. This was sent to the pathology. The fracture was noted to be basicervical and preoperatively, decision was made to consider cemented calcar stem. An L-shaped osteotomy was performed in order to accept the calcar prosthesis. The basicervical fracture was noted to be just at the level of superior border of the lesser trochanter. There was no calcar superior to the lesser trochanter. The L-shaped osteotomy was performed to refine the bony edges and accept the calcar prosthesis. Hemostasis was achieved. Now, the medullary canal was entered with a canal finder. The fracture site was well exposed. Satisfactory lateralization was performed. Attention was for the reaming process. Using a size 1 reamer, the medullary canal was entered and reamed up to size 3, which gave us a satisfactory fit into the canal. At this point, a trial prosthesis size 3 with 45 mm calcar body was inserted. Appropriate anteversion was positioned. The anteversion was marked with a Bovie to identify subsequent anteversion during implantation. The bony edges were trimmed. The calcar implant with 45 mm neck length was fit in the host femur very well. There was no evidence of any subsidence. At this point, trial reduction was performed using a bipolar trial head with 0 neck length. The relationship between the central femoral head and the greater trochanter was satisfactory. The hip was well reduced without any difficulty. The stability and range of motion in extension and external rotation as well as flexion-adduction, internal rotation was satisfactory. The shuck was less than 1 mm. Leg

length was satisfactory in reference to the contralateral leg. Stability was satisfactory at 90 degrees of flexion and hip at 75-80 degrees of internal rotation. Similarly, keeping the leg completely adducted, I was able to internally rotate the hip to 45 degrees. After verifying the stability and range of motion in all direction, trial components were removed. The canal was thoroughly irrigated and dry sponge was inserted and canal was dried completely. At this point, 2 batches of SmartSet cement with antibiotics were mixed. The definitive Ultima calcar stem size 3 with 45 mm calcar body was selected. Centralizer was positioned. The cement restrictor was inserted. Retrograde cementing technique was applied once the canal was dried. Using cement gun, retrograde cementing was performed. The stem was then inserted into cemented canal with appropriate anteversion, which was maintained until the cement was set hard and cured. The excess cement was removed with the help of a curette and Freer elevator. All the cement debris was removed.,Attention was now placed for the insertion of the trial femoral head. Once again, 0 neck length trial bipolar head was inserted over the trunnion. It was reduced and range of motion and stability was satisfactory. I also attempted with a -3 trial head, but the 0 gave us a satisfactory stability, range of motion, as well as the length and the shuck was also minimal. The hip was raised to 90 degrees of flexion and 95 degrees of internal rotation. There was no evidence of any impingement on extension and external rotation as well as flexion-adduction, internal rotation. I also tested the hip at 90 degrees of flexion with 10 degrees

adduction and internal rotation and further progressive flexion of the hip beyond 90 degrees, which was noted to be very stable. At this point, a definitive component using +0 neck length and bipolar 43 head were placed over the trunnion and the hip was reduced. Range of motion and stability was as above. Now, the attention was placed for the repair of the capsule and the external rotators and the piriformis. This was repaired to the trochanteric insertion using #5 Ethibond and suture plaster. Satisfactory reinforcement was achieved with the #5 Ethibond. The wound was thoroughly irrigated. Hemostasis was achieved. The fascia was closed with #1 Vicryl followed by subcutaneous closure using 2-0 Vicryl. The wound was thoroughly washed and a local injection with mixture of morphine and Toradol was infiltrated including the capsule and the pericapsular structures. Skin was approximated with staples. Sterile dressings were placed. Abduction pillow was positioned and the patient was then extubated and transferred to the recovery room in a stable condition. There were no intraoperative complications noted.