Giant Cell Tumor as a Cause of Pathological Hip Fracture in a Young Patient: About A Case

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Abstract

GGA, 25-year-old female, HC 859329. ID: Pathological fracture of the right hip assessed at the Guayaquil Hospital Emergency, referred to the "Luis Vernaza" social insurance hospital, where she was hospitalized for pathological fracture of the right hip of about 45 days of evolution, where they do a bone biopsy and report that giant cell tumor

Keywords: Giant cell tumor

Case Report

GGA, 25-year-old female, HC 859329 with pathological fracture of the right hip, assessed at the Guayaquil Hospital Emergency, referred to the Luis Vernaza social insurance hospital, where she was hospitalized for a pathological fracture of the right hip of about 45 days Evolution, where they make a bone biopsy and report that it presents tumor of giant cells; Your private health insurance does not cover further treatment and you are advised to go to the public health system and send it to the Guayaquil specialty hospital. According to the patient, she remained hospitalized for a month and a half. After this time, they tell you that they cannot operate on it.

Discussion

Figure 1: Initial and operative image.

A 25-year-old KGA, referred to as referred to by the social insurance company "Luis Vernaza", was hospitalized for a pathological fracture of the right hip with a 45-day evolution,
where a bone biopsy is performed and a tumor is reported of giant cells. Upon physical examination of the patient, we observed external rotation with shortening of 2.5 cm of the lower right limb, predominance of the right hip and thigh, functional impotence due to pain when palpating and moving the right hip, local volume increase in the trochanteric region of the right femur with pain on palpation (Figures 1 & 2).

We indicate a preoperative protocol to perform new tumor biopsy, in addition examinations of general hematology, biochemistry, Phosphatases, calcium, phosphorus, tumor markers, among others, Rx simple, Bone scintigraphy; Axial tomography of the thorax and abdomen for tumor staging. In the antero posterior hip of the right hip at a real distance (1.40 m), we found a pathological fracture with basivisceral main tract, consolidation in varus and a broad bony tumor that extends from the femoral neck, all the mass of both trochanters and subtrochanteric part, with 6-7 cm of proximal femur with tumor. The complementary one’s report Hemoglobin in 8 g / L, phosphatase in 260 U / L, the bone scan, chest X-ray and abdomen negative and examinations performed evidence non-metastatic disease (Figures 3 - 5).

Two units of red cells are transfused compatible with group and Rh factor, incisional tumoral bone biopsy is performed, and simultaneous samples are sent to pathological anatomy laboratories of Guayaquil hospital and SOLCA hospital. (Cancer Society). A week later we received a report by pathologists diagnosed with Giant Cell Tumor; Histology with elongated mononuclear stromal cells with large nuclei. The case is discussed in Medical Staff integrated by Traumatology, Anesthesiology and Clinical Oncology, who consider: Surgical staging in IB, extracorporeal bone and muscle of origin, with low degree, based on Enneking 1980. In addition, in the medical analysis we agree that Reference patient was in a stage III of Capanacci; whose author proposes the extensive resection associated with the reconstruction of the affected area in stage III (Figure 6).
It is agreed by consensus of the Medical Staff to perform a wide surgical resection that includes 10 - 11 cm of proximal femur, due to the magnitude of the tumor that encompasses the entire hip loading zone, which includes major and minor trochanters and about 6-7 cm of femur proximal right, associated to basiscervical pathological fracture in vicious consolidation in varus and with shortening of lower limb. The patient and relatives are informed of extensive tumor resection of 10-11 cm proximal femur and unconventional prosthesis, total of uncemented hip. The patient and family accept the surgical proposal and sign informed consent for surgery (Figure 7).

Preoperative control and evaluation by anesthesiology, internal medicine and cardiology with evaluation suitable for surgery. We programmed the surgery and performed extensive surgical resection, where it was observed intraoperatively that the entire proximal femur was fractured in several fragments of different sizes and invaded by bone tumor, 11 cm of proximal femur were resected and unconventional prosthesis was placed, total hip Non-cemented, image intensifier control in satisfactory trans operative, mobility of the prosthesis without difficulty, good stability and recovery of the length of the lower right limb (Figure 8).

The patient is hospitalized for 96 hours postoperatively. At 24 hours of surgery, early ambulation with support of forearm crutches, good evolution, and consultation with hospital oncologists for assessment of neoadjuvant or post-surgical chemotherapy and follow-up by consultation External Traumatology. The patient and family members communicate their total well-being and appreciation for the care and treatment received; We follow up by traumatology at 15 days, at month, three months, six months and at the year of surgery, its evolution is satisfactory, radiographic control and satisfactory complementary examinations (Figure 9).

![Figure 7: Rx Ap hip with 8 months of surgery.](image1)

![Figure 8: Rx Ap hip with 1 year and 4 months of surgery.](image2)

![Figure 9: Medical equipment.](image3)

**Conclusion**

We performed extensive surgical resection, based on Enneking 1980 and on the Capanacci classification for surgical treatment. It was observed intraoperatively that the entire proximal femur was fractured with several fragments of different sizes and completely invaded by tumor; 11 cm of proximal femur were resected and unconventional prosthesis was placed, total of uncemented hip, with consultation with oncologists Hospital for evaluation of neoadjuvant or post-surgical chemotherapy and follow-up by external consultation of Traumatology and Oncology.

**Conflict of Interest**

In this article, there are no conflicts of interest.
