Scapular Mass on a Patient Lost to Follow-up: A Case Report

Sohil Gopal, OMS-III1, Steven Li, OMS-II1, Ryan Meng, OMS-II1, Samira Perez, OMS-II1, Jacob Wilson, OMS-II1, Ruben Kenny Briceno, MD2, Jill Cochran, PhD1

1. West Virginia School of Osteopathic Medicine, Lewisburg, WV
2. Michigan State University College of Osteopathic Medicine, East Lansing, MI

Background

- Scapular masses are statistically more malignant than benign. Based on tumor progression, there exists a concomitant risk of impairing mobility, compressing nerves, and pathologic fracture. 1,2
- Diagnostic confirmation is through histopathology, which can indicate if chemotherapy is needed post-resection. 3
- Scapulectomy is recommended even in a benign case due to risk of malignant transformation. 3
- Patients with allograft impaction after resection have better functional outcomes than without reconstruction. 4
- Access to advanced diagnostic tools poses a significant challenge within developing countries. 5,6
- The lack of access hinders early accurate detection of diseases, which in turn contributes to poorer health outcomes for those individuals.
- In this absence, providers may opt for empirical treatments or unnecessary tests, resulting in hefty healthcare expenses.

Case

15-year-old Amazonian Peruvian male presented to a Medical Campaign setup in Iquitos with a palpable mass on right scapula which had been increasing in size for a year. The estimated size was 3 x 4 cm. He possessed no past medical history of allergies, chronic diseases, or regular medication intake. On the physical examination, the patient was pale, afebrile, and spontaneously breathing. There was neither edema nor organ enlargements. A CT scan was brought into the clinic which showed exostosis, primarily projecting posteriorly, and a small portion of it projecting anteriorly. Conflict within the family resulted in hesitancy towards biopsy. Ultimately, the patient was set up for biopsy in Lima via local connections and his physician. The sample analysis yielded the result of osteosarcoma. Resection, radiation, and chemotherapy were recommended, but there has been hesitation from family based on personal beliefs and financial hardship.

Differential Diagnoses

- Osteosarcoma – Based on the biopsy report along with presentation of diffuse pallor.
- Osteochondroma – Initially the primary diagnosis before the biopsy based on asymptomatic and comparative study. 7,8
- Ewing sarcoma – Based on age group.
- Bone metastases – Very rare in his age group.
- Lipoma – Ruled out on physical exam.

Discussion

- Hesitation towards biopsy showed a key difference in attitudes toward medicine in low-income regions of Peru compared to the United States. This emphasizes the importance of medical service missions.
- The case presented a rare scapular osteosarcoma that was not diagnosed for over a year; this emphasizes the importance of healthcare accessibility regardless of socioeconomic status
- Differential diagnosis of a bone lesion can be narrowed based on age group. Initially the primary diagnosis before the biopsy.
- Tumor staging is crucial in planning treatment and possible reconstruction if necessary. The biopsy result, final diagnosis may not always match the presentation based on statistical likelihood.
- The biopsy will not have any significant impact on the patient’s quality of life without access to more invasive diagnostic and corrective care.
- The family decision regarding treatment will be respected to maintain patient’s medical ethical integrity.

References

8. 2020;02:138-142. doi:10.1016/j.ijscr.2018.03.034
10. 2020;02:138-142. doi:10.1016/j.ijscr.2018.03.034

Acknowledgments

- DOCARE International and Power of a Nickel were the programs responsible for this medical service trip to Peru, under the leadership of Dr. Jodi Flanders, DO, and James Deering, DO.
- Setting up clinic in Iquitos was possible through the hospitality by Padre Raymond Portelli.
- Research reported in this publication was supported by the National Institute of General Medical Sciences of the National Institutes of Health under Award Number 2U54GM104942-07. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Figure A. Gross examination of the scapular lesion from coronal view, comparing size to ruler on the pocket size Snellen eye chart. Figure B. Axial view of scapular lesion, with no winging of scapula. Figure C. 3D reconstruction of CT scan brought by the patient, presents well demarcated calcified mass in inferomedial region of right scapula.

Figure 1.