



Bone Marrow Examination: Indications and Diagnostic Utility in a Tertiary Care Center.

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Background

Trepanning of the bone is the oldest surgical procedure that continues to be a valuable diagnostic tool in hematology. It is a simple and relatively safe procedure. Bone marrow aspiration provides an insight on bone marrow cellularity, its architecture and stages of maturation of the different blood cells. It helps in diagnosis and staging of hematological malignancy, infiltrative disorders, and storage disease and to rule out infections.

Objectives

This study aims to evaluate the diagnostic utility of bone marrow aspiration and biopsy in children admitted in tertiary health care center, to identify the main indications and the disease profile.

Materials and Methods

The study design is a one-year retrospective review of bone marrow aspiration and biopsy from archived records (June 2021-May2022) at tertiary health care center. The information extracted included indications for performing the procedure and the most common diagnosis encountered.

Results

- 1) In 65.38% of the cases bone marrow aspiration and biopsy are diagnostic of the underlying disease.
- 2) Severe anemia (40.38%) and chronic fever (26.9%²) was the most common indication of bone marrow aspiration and biopsy
- 3) Most common diagnosis was malignancy (34.62%) followed by hematological diseases (26.92%), metabolic diseases (3.84%).

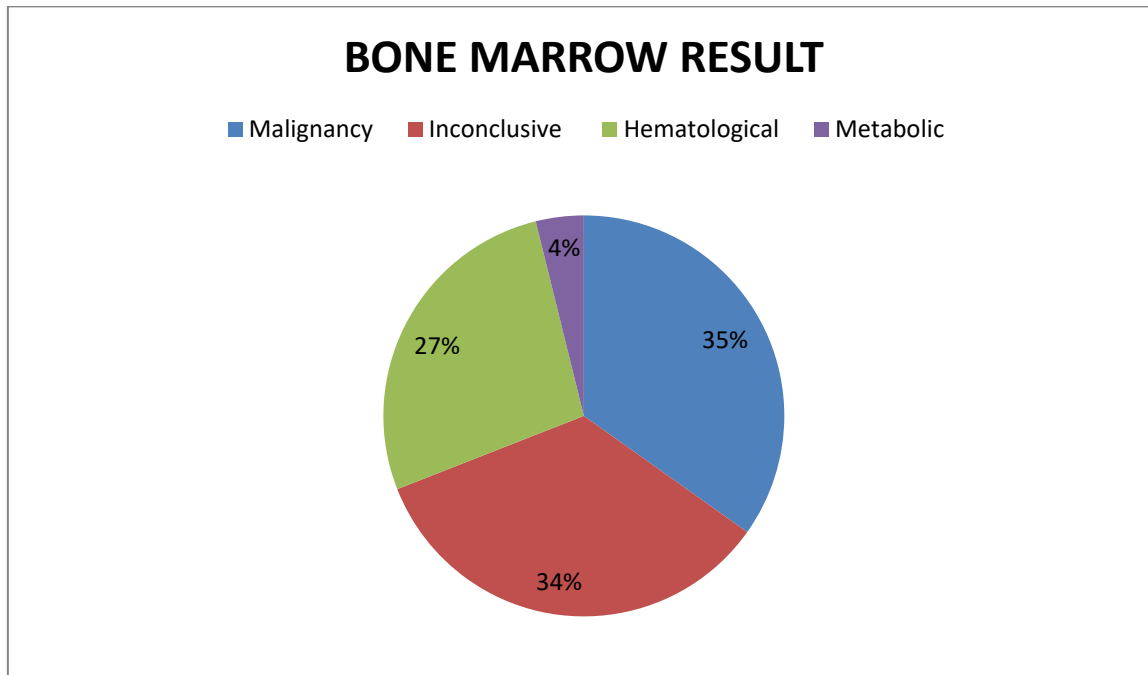


Figure 1

Conclusion

This study confirms that Bone marrow aspiration and biopsy are confirmative and play an important role in establishing the diagnosis in many conditions, prognosis and to decide further plan of action in pediatric patients. The most common indication for this procedure in our hospital was to confirm and manage hematological neoplasms.

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