

The aim of this study is to assess the results of bone marrow aspiration with or without trephine biopsy in Babil province.

In this observational study, 5644 Iraqi patients were included, male: female ratio was 1.3:1 and age range was 1-78 years. The patients attended hospital for bone marrow aspiration with or without biopsy over a period of 9 years from 1st March 2006 till 1st March 2015. Pallor and anemia (55.3 %) were the most common indication. The morphological examination of blood film and bone marrow were performed.

The final diagnosis was reached in 93.21% (5261/5644) of patients by morphological examination of bone marrow samples only. However, other 383 (6.78%) of patients needed further advanced tests. The result of BME was normal in 28.72% (1621/5644) of patients which was the most common result.

Non-Hodgkin's lymphoma was the cause of bone lytic lesions in a significant number of cases and it should be kept in mind.

This study concluded that bone marrow examination is a worthy test and can reach the diagnosis in majority of cases with morphological examination only, and this ratio can be increased by introduction of other supplementary tests like CD markers and immunohistochemistry. Normal results also helped diagnosis by their exclusive value. Doctors must be encouraged to request BME whenever they found it indicated.