



Procedure Information Sheet

Introduction

The bone marrow is widely distributed throughout the body but functions as a single organ which accounts for 4% of the total body weight in adults. It is the site of primary production of peripheral blood cells, namely, the red blood cells for oxygen transport, the white blood cells for body defense and immunity, and the platelets for blood clotting. Bone marrow examination is therefore an integral part of diagnosis and management of patients with hematological disorders.

Indication

- Unexplained anemia, decrease or increase in white blood cells or platelets
- Suspected leukemia or marrow infiltration by abnormal cells
- Unexplained enlargement of spleen and in fever of undetermined origin
- Diagnosis and staging of lymphoma or solid tumors
- Confirmation of normal marrow in potential allogeneic donor.

The Operation / Procedure

1. Marrow examination is a minor bedside surgical procedure. It is done under local anesthesia and strict aseptic technique.
2. Mild discomfort during marrow aspiration may be occasionally encountered. This is readily alleviated with the use of local anesthesia.
3. The usual site for examination is at the posterior superior iliac crest which is part of the pelvic bone. Occasionally, when marrow aspiration is not possible from the iliac crests, other sites such as the sternum or the tibia (in children) may be chosen.
4. With the patient assuming a comfortable prone position, a special needle is inserted. Only a small amount of liquid marrow is aspirated. If bone marrow biopsy is required, a small piece of bone about 1-2 cm with attached bone marrow will be taken afterward.
5. No suture is required at the puncture site.
6. The whole procedure usually takes about 10 minutes – 20 minutes (for unilateral – bilateral).

Before the Operation / Procedure

1. A written consent is required.
2. Please inform doctor if you are taking medication that affect blood coagulation, such as Aspirin, Plavix, Warfarin, Xarelto, Pradaxa, Eliquis, Lixiana and so on.

After the Operation / Procedure

1. You should lie in a supine position, so as to apply body weight to the biopsy site to prevent bleeding.
2. If you find the dressing is wet, inform your nurses. New pressure dressing will be applied.

Risk and Complication

1. Pain is relatively common at the puncture site. It may last for several days and can be relieved by simple analgesics.
2. Bleeding at the puncture site (usually stop within a short period)
3. Infection (rare)
4. Damage to the nerve (very rare)

Patient's Label
Patient Name: _____
Hospital No: _____
Episode No: _____



Bone Marrow Aspiration (and Trephine Biopsy if necessary)

Bone Marrow Aspiration (and Trephine Biopsy if necessary)

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Zehnder, J.L., Schrier, S.L., & Rosmarin, A.G. (2018). Bone marrow aspiration and biopsy: Indications and technique. *UpToDate*. Retrieved on 15/112018 from https://www.uptodate.com/contents/bone-marrow-aspiration-and-biopsy-indications-and-technique?search=bone%20marrow&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2

Patient's Signature: _____ Date: _____

<p>Patient's Label Patient Name: _____ Hospital No: _____ Episode No: _____</p>
