

PERCUTANEOUS DRAINAGE OF ABSCESSSES OR FLUID COLLECTIONS

Information for patients

Introduction

- Antibiotics may help small abscesses or fluid collections but they are not usually effective against large collections. Pus or abnormal fluid collections can be drained to relieve symptoms. Pus/fluid obtained can also be sent to the laboratory for analysis.
- This procedure will be performed by radiologists with special training in interventional radiology. The procedure will generally be performed in the Department of Radiology under image guidance, such as X-ray, ultrasound or computed tomography (CT).

Procedure

- The procedure will be performed under local anesthesia and aseptic technique. The abscess or fluid collection is drained by inserting a needle followed by a fine plastic tube, called a drainage catheter, through a tiny skin incision. This procedure is called percutaneous (through the skin) drainage. It is designed to obviate or delay a major operation.
- After the procedure, your vital signs (e.g. blood pressure, pulse) will be monitored.
- What happens next will vary in different situations. The pus or fluid collection may simply be drained through the needle or catheter which is then withdrawn. Sometimes, the catheter is attached to a drainage bag so that pus can be drained for some days. In such circumstances, the catheter will be secured to the skin by stitches and adhesive tapes. Patients should take care not to dislodge or kink the drainage catheter.
- Usually the catheter is removed when the drained fluid becomes scanty and clinical condition improves. Repeated imaging is sometimes required to monitor progress.
- The success of percutaneous drainage of uncomplicated abscess or fluid collection exceeds 90%. This decrease significantly (down to 65%) with complicated collections such as those with loculation or inflammation (e.g. pancreatic abscess).

Potential Complications

- Overall complication rates are less than 15% and procedure-related mortality is rare.
- Major complications:
 - Puncture of a blood vessel in the path or adjacent to the abscess can cause severe bleeding that may require blood transfusion, interventional procedure or even open surgery to stop bleeding.
 - If the drainage site is in the abdomen, puncture of adjacent organ such as bowel can cause peritonitis (inflammation of abdominal cavity), bowel obstruction, or bowel fluid draining from the catheter. Surgical repair may then be necessary.
 - In the drainage of pleural effusion, lung abscess or upper abdominal abscess/fluid collection, the lung may be punctured. Sometimes blood may enter the pleural cavity, causing haemopneumothorax (blood and air in the pleural cavity). Pus may also leak into the pleural cavity, necessitating further drainage or surgical procedure. A wide-bore plastic tube (called a chest drain) may have to be inserted into the pleural cavity under local anaesthesia to relieve the air and/or blood.
 - Drainage of abscess may cause septicaemic shock which may be life-threatening.

- Minor complications:
 - Include local pain, bleeding, infection and leakage along the catheter track. Bleeding from the catheter site is usually self-limiting.
 - Catheters may also be dislodged, kinked or blocked. In such cases, a new catheter may have to be inserted.
- The overall adverse reaction related to iodine-base non-ionic medium is below 0.7%. The mortality due to reaction to non-ionic contrast medium is below 1 in 250,000.

Disclaimer

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Prepared in 2010. Version 2.0