

## A Novel Analgesic Approach for Percutaneous Transhepatic Biliary Drainage

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### Letter to the Editor

In developing world, malignant tumours of pancreas and gall bladder usually present very late with bile duct obstruction. The clinical presentation in such cases is epigastric pain and progressively increasing jaundice. In any stage of disease, biliary obstruction has to be relieved with external drainage. Percutaneous trans hepatic biliary drainage (PTBD) is the procedure of choice and is done by interventional radiologist under local anaesthesia [1]. As any interventional procedure under image guidance needs patient immobility and cooperation especially if done under LA. Catastrophic complications related to PTBD were reported in literature including bleeding, sepsis, acute pancreatitis, intrahepatic haematoma, and gut perforation [2]. Also, pain is the most common complaint in the post procedure period. As there is no standard anaesthetic technique described in literature for PTBD, we would like to share our experience using subcostal trans versus abdominis plane (TAP) block for PTBD.

A 42 year cachexic male, diagnosed with carcinoma head of pancreas was planned for PTBD. He had jaundice with conjugated hyperbilirubinemia having bilirubin levels of 21 mg. After a written informed consent, it was planned to do the PTBD under LA. The right sided subcostal approach for PTBD was attempted but because of pain at the puncture side, patient became uncooperative and procedure was abandoned. The case was discussed and reviewed by consultant anesthesiologist for doing the procedure under general anaesthesia. Considering the poor general condition and elevated bilirubin levels, it was decided to do PTBD under ultrasound (US) guided oblique subcostal TAP (OSTAP) block. After attaching all the standard monitors, OSTAP block was given under US guidance. Plane of block between rectus abdominis and transversus abdominis was confirmed using hydro dissection technique, 20 ml of 0.25% plain ropivacaine was injected after negative aspiration [3]. The procedure was started after testing sensory block with pin prick and was completed without any complaints of pain. The total procedure time was 30 min. The pain

score on numerical rating scale was 2 out of 10 at the end of procedure. Patient was followed up in the post procedure period, his pain score and any other complications for next 24 hours were noted. The average pain score in the post procedure period was 2/10 on NRS. He was discharged after 24 hours of observation.

Ultrasound guided approach for TAP block was first described by Hebbard [4]. Since then it is being used for intraoperative and postoperative anaesthesia and analgesia in lower abdominal surgeries. The technique involves real time injection of local anesthetic under US guidance into the plane between the transversus abdominis and the internal oblique muscles to block the thoracolumbar intercostal nerves.

The oblique subcostal TAP block is a modification of classical TAP block with advantage that it can provide upper abdominal wall analgesia blocking T7-L1 dermatomes. It can easily be performed under US guidance by identifying plane between the rectus abdominis and transversus abdominis muscle near the costal margin [4].

Hence, US guided oblique sub costal TAP block is an effective anaesthetic technique for drainage procedures performed on upper abdomen. It can be safely used in PTBD procedure where general anaesthesia is risky because of deranged liver functions.

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