

# A Quick Review of Transverse Abdominis Plane (TAP) Block

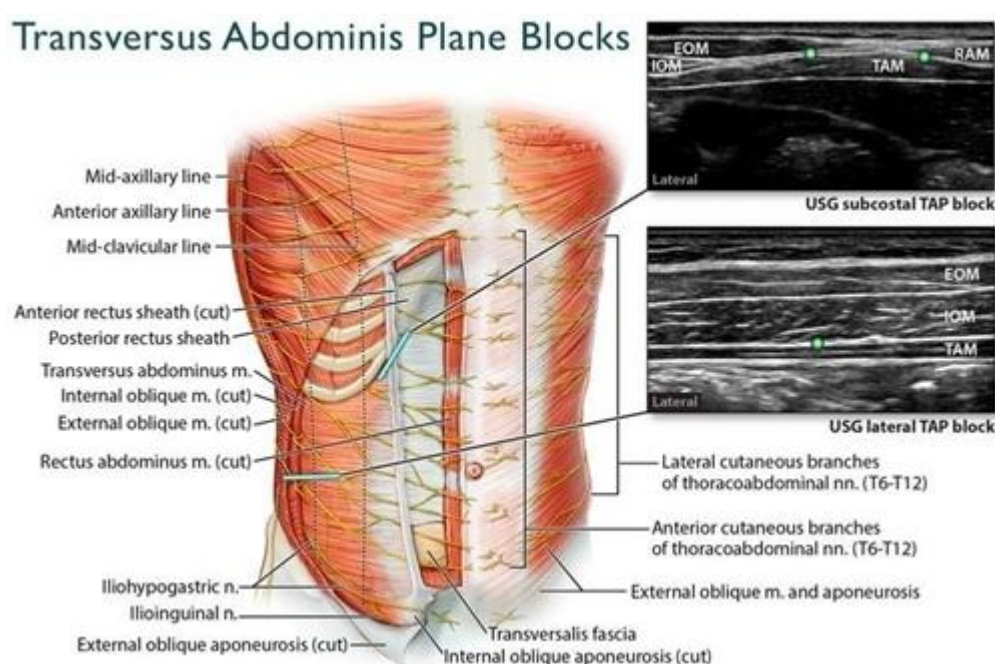
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## 1. Introduction

Transverse abdominis Plane (TAP) block allow anaesthesia for lower thoracic nerve and T10 to T12 and first Lumbar Nerve L1. Originally described by Raffi in 2001 and later by Hebbard using Ultrasound technique. These nerves blocked between Internal oblique and transverse abdominis

muscle and block the sensation of skin, muscles, parietal peritoneum with sparing of visceral peritoneum below the umbilicus. TAP block used for surgeries like Hysterectomy, Caesarian sections, Herniotomy, Appendectomy, Coloectomy, Nephrectomy, Renal transplants and Prostatectomy.



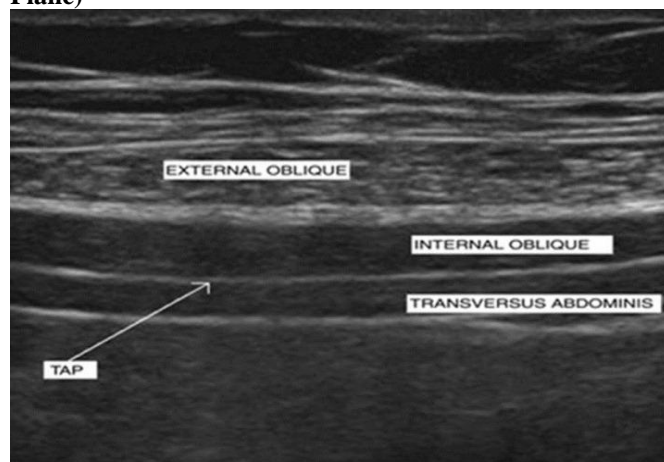
### Anatomy of TAP (Transverse Abdominis muscles Plane)

The skin of the anterior abdominal wall is supplied by the ventral rami of the inferior six thoracic nerves. These nerves are the continuation of the T7 to T11 intercostal nerves and the subcostal nerve (T12). The ventral ramus divides into a lateral cutaneous nerve and an anterior cutaneous nerve. These innervate the skin of the anterior abdominal wall. The ventral rami of T 7 to T12 run in the plane between the transversus abdominis muscle and the internal oblique muscle – the Transversus Abdominis Plane

### Blind TAP (Transverse Abdominis muscles Plane)

The point of entry for the blind TAP block is the lumbar triangle of Petit. This is situated between the lower costal margin and iliac crest. It is bound anteriorly by the external oblique muscle and posteriorly by the latissimus dorsi. This technique relies on feeling double pops as the needle traverses the external oblique and internal oblique muscles. A blunt needle will make the loss of resistance more appreciable.

### USG Guided TAP (Transverse Abdominis muscles Plane)



The Muscles are Hypoechoic, fascia are hyperechoic and bowel will have visible movements during imaging. Iliac crest and subcostal margin in the mid axillary line is used as a landmark for this block. High frequency linear

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Transducers probe, 20 gauge 10 cms bevelled needle and 0.5% Bupivacaine 15 to 20 ml injected using inplane techniques after identifying facial plane between Internal oblique muscles and transverse abdominis muscles from medial to lateral.

## 2. Conclusions

TAP block is easy to perform, less haemodynamic instability, Provides good analgesic effect for lower abdominal surgery below umbilicus. Single shot or continuous catheter block can be done for extendend analgesia.

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