KAPT (Kingsmill – Anterior Posterior Transverse) Block
A new innovative precision block for operative outpatient hysteroscopy

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OBJECTIVE
To assess the effectiveness of a novel precision local anaesthetic block known as KAPT block in operative outpatient hysteroscopy especially in patients with pre-existing dysmenorrhea.

BACKGROUND
Lee Frankenhaser’s (LFH) plexus (Image 1). Outpatient diagnostic and operative hysteroscopy services have gained popularity across the UK.

The traditional method employed during hysteroscopy is to give a paracervical or intracervical block, these are subjectively performed without any precise measurements. We have developed a new technique for administrating local anaesthesia which targets the Lee Frankenhaser’s (LFH) plexus (image 1).

THE NOVEL APPROACH

Traditional paracervical and intracervical blocks target the nerve fibres to the uterus but only after dispersion from the LFH plexus thus reducing efficacy in reducing pain.

The LFH plexus fibres travel to the uterus via the uterosacral ligament (Image 2). Our technique precisely identifies the region of the LFH plexus by measuring 3cm from the external os at positions between 4 and 5 O’clock and 7 and 8 O’clock respectively. These two points are infiltrated with 4ml of local anaesthetic using a dental syringe in both transverse and anterior-posterior direction at a depth of 25mm using an inject withdrawal technique (Image 3).

METHODOLOGY

This is a single center prospective observational study of 37 patients who underwent operative hysteroscopy with Novasure or Myosure between July and December 2015 at Kingsmill hospital in Nottinghamshire.

All pre-menopausal patients were asked if they had symptoms of dysmenorrhea and to score their severity. Their pain symptoms were scored between 0-10 as is defined by the standardized Numeric Rating Scale (NRS-11). They were also asked for their pain scores after cervical dilation, during the procedure and 5 mins after the procedure.

RESULTS

Majority of women had been referred for removal of polyp or fibroid. 73% of the patients were premenopausal of which 23 reported pre-existing symptoms of dysmenorrhea with an average score of 7.8 out of 10 (SD ±1.87).

The Myosure patients had an average pain score of 0.704/10 (SD ±0.24) and the Novasure patients had an average score 1.210/10 (SD ±0.44) after the KAPT block, both of which would be defined as very mild pain. No patient scored their pain greater than 4/10, with 68% reporting no pain (NRS =0).

None of the procedures had to be stopped due to pain and all patients reported a score of 0 for their post procedure pain.

CONCLUSION

This study suggests that KAPT block is a precise and effective method of providing anaesthesia for women undergoing operative outpatient hysteroscopy including women with pre-procedural history of dysmenorrhea. These results were not affected by the pre-procedural level of anxiety.

FUTURE PLANS

We hope to follow up with a randomized controlled study to assess the effectiveness when compared to traditional blocks.

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