

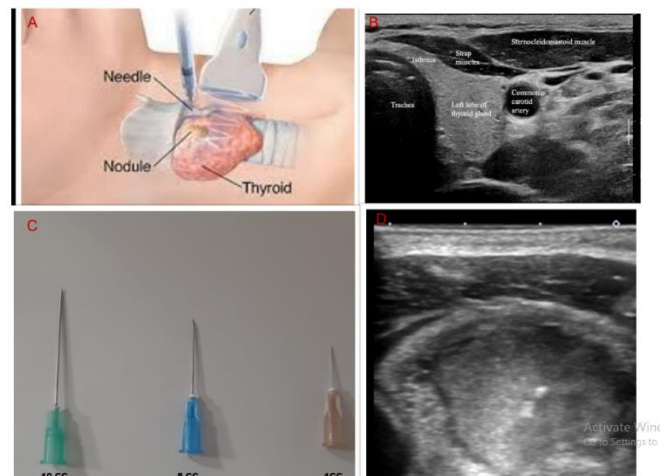
Techniques Applied in Performing a Painless Thyroid FNA; Tips and Tricks

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Thyroid nodules are frequently encountered clinically and the prevalence has surged to 68% as cited.¹ Many guidelines in the literature recommend USG guided FNAC in differentiating malignant from benign thyroid nodules.² Fine needle aspiration (FNA) biopsy of thyroid nodules is one of the minimally invasive, safe and frequently performed procedure on outpatient basis. FNA can be performed under palpation guidance or ultrasound guidance. In addition to knowing the optimum technical skills, one must know the limitations of procedure, its indication and factors affecting the adequacy. Local site pain and ecchymosis are two main commonly seen complications by the IR operators however serious events are rarely reported till date.³ FNA is a well-tolerated procedure but pain is one of the few drawbacks of FNA, however pain score may vary in different people. Some reports have suggested that FNA can be done without local anesthesia when single puncture is used, however multiple punctures are required for adequacy of the sample and in this case, pain is the limitation. Literature review suggest use of 22 to 27 G needles for FNA but blood contamination is frequently seen with the use of larger needles.⁴ In our setting, oral paracetamol is administered pre-procedurally to alleviate any discomfort caused by minor bruising and the needling process. Techniques

used to minimize the pain felt during the procedure include the following: 1) Use of the smallest needle size available. We use the needle from a 1 cc syringe which has a detachable 26-gauge needle (commonly used for Insulin injections). For patients with increased skin to gland distance a longer needle in 23 gauge is used in addition. 2) Mixing of the local anesthesia with bicarbonate to neutralize the stinging effect of the acidic local anaesthetic.



A: Thyroid FNAC illustration.

B: Ultrasound thyroid anatomy.

C: Types of needles.

D: Ultrasound guided FNAC showing needle.

We perform infiltration of the skin and in addition the thyroid capsule so that all subsequent needle entries are painless. In our setup, almost 10 mL of local anesthesia is used comprising of 9 mL of 2% xylocaine and 1 mL of sodium bicarbonate (8.4%

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w/v) in a ratio of 9:1. Since adopting this protocol and technique in our setup at Shifa International Hospital the patients have given excellent feedback

especially those who had a FNA performed in the past.

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