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INNOVATIVE SKIN DIAGNOSTIC TECHNIQUE IN COVID-19 ERA: A CASE SERIES

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INTRODUCTION

Skin biopsy is very important and commonly performed office procedure in dermatology practice. During skin biopsy, dermatologist uses surgical instruments from which there are chances of transmission of coronavirus from patients to health care workers if there is sterilization failure or it comes in contact of fomites containing coronavirus from the environment.[1] Not only coronavirus, there are chances of spreading Human immunodeficiency virus and Hepatitis virus through surgical instruments.[2]

CASE DESCRIPTION

In our case series, a novel punch biopsy technique using disposable instruments was used to decrease virus transmission i.e. the need of today's Covid-19 era. This technique was performed on three patients with different skin manifestations after proper written informed consent. The skin biopsy area was locally sterilised and local anaesthesia was injected. A 4 mm disposable plastic punch biopsy device was inserted (Figure 1) and the core was excised with the help of two sterilised pointed stick of wood (tooth pick) and single use surgical blade (no. 15). (Figure 2) After tissue removal, it was gently transferred with two sterilised toothpicks to biopsy collection vial. (Figure 3) Post procedure antiseptic dressing was done. This novel technique was compared with the conventional biopsy technique to look whether our novel technique was sufficient enough to reach to a diagnosis.

DISCUSSION

We performed this novel punch biopsy technique in three patients with different clinical diagnosis and different pathogenesis i.e., Psoriasis (Papulosquamous disorder), Bullous pemphigoid (Immunobullous disorders) and Atopic dermatitis (Eczematous disorders). The tissue obtained by this novel technique sent for histopathology was sufficient enough to make a diagnosis. This novel technique was also compared with conventional technique and Histopathological photomicrographs in both the techniques were comparable and sufficient enough to make a diagnosis. (Figure 4)

CONCLUSION

The utility of this novel technique is re-established by the confirmatory histopathological report. Novel technique had an added advantage of avoidance of tissue crushing by forceps and Useful in resource poor settings especially in therapeutic punch excision – melanocytic nevi, pyogenic granuloma, corn, warts, molluscum contagiosum.

Fig. 1: Disposable plastic punch biopsy device is inserted.

Fig. 2: Core is excised with two sterilised tooth picks and single use surgical blade.

Fig. 3: Transferred with two sterlised toothpicks to biopsy collection vial.

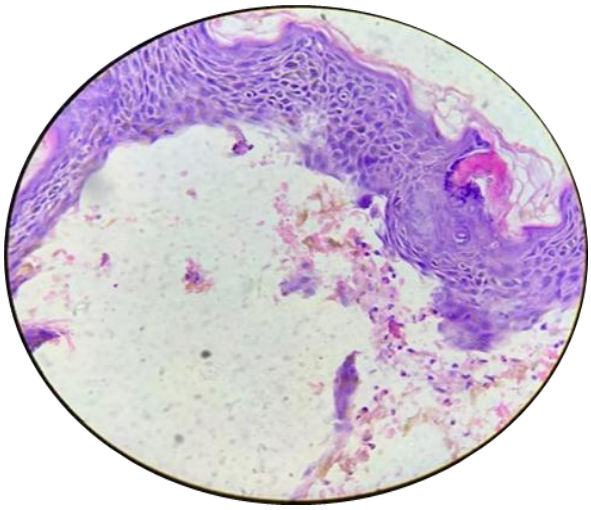

Fig. 4: Histopathological photographs of skin biopsy of patient of bullous pemphigoid.

Declaration

There are no conflicts of interest.
Prior written informed consent was taken.

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