Power of Simplicity in the High - Tech World: Impact of Biopsy on Treatment Decisions

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In the field of Oral Pathology, diverse diagnostic and treatment modalities provide unique perspectives, reflecting the discipline's evolving landscape. In recent years, advancements in techniques such as special stains, immunohistochemistry, Polymerase chain reaction (PCR), enzyme-linked immunosorbent assay (ELISA), Velscope, and flow cytometry have significantly transformed the diagnostic spectrum. Artificial intelligence (AI) is also gaining widespread attention, signaling an exciting future with limitless possibilities.

Despite these advancements, basic investigative modalities like clinical inspection, palpation, thorough history-taking, biopsy, and fine-needle aspiration cytology (FNAC) remain the cornerstone of routine practice. Among these, biopsy stands as the gold standard. Why does biopsy hold this status over other techniques? The reasons are evident: it is a relatively simple, cost-effective, minimally invasive, and easy-to-perform procedure. Most importantly, biopsy provides definitive answers to differential diagnoses, directly influencing patient treatment plans.

Biopsy resolves critical diagnostic questions and ensures precise treatment strategies. Different types of biopsies, including punch, incisional, excisional, and brush, offer tailored approaches based on the clinical scenario. However, challenges arise when clinicians delay or avoid performing biopsies due to a "wait and watch" approach, inadequate decision-making, or limited knowledge about oral lesions. Such delays can lead to lesion progression, worsening of the condition, delayed treatment, and poor prognosis.

Clinicians must embrace the principle that Prevention Is Better Than Cure. A common oversight is the management of periapical lesions, often treated with root canal therapy and antibiotics without further investigations.

If these lesions persist, re-evaluation or retreatment is required, leading to delays and potential complications. In some cases, seemingly benign lesions have been diagnosed as malignant due to the prudent decision to perform a biopsy and send the specimen for histopathological examination.

Biopsy plays a crucial role in identifying and grading dysplasia in precancerous lesions, enabling clinicians to track the progression toward carcinoma. Early detection through biopsy not only aids in effective management but also significantly improves a patient's outcomes. Hence, clinicians must remain vigilant and prioritize biopsies in their diagnostic toolkit to ensure optimal care for their patients. Biopsy, despite being a straightforward and valuable diagnostic tool, is sometimes overlooked by clinicians. In such cases, seeking opinions from multidisciplinary experts, including oral physicians, oral surgeons, and oral pathologists, can be highly beneficial.

While advances in the field are exciting and motivating, it is important not to overlook the beauty, simplicity, and usefulness of a biopsy