

ESSENTIAL LABORATORY INVESTIGATIONS FOR DENTAL STUDENTS

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CHAPTER FIVE

Tumor Markers

Dr. Muhammad Ali Kashmoola

Tumor marker is a substance that is either produced by a tumor itself, or is fashioned by the host in response to the presence of a tumor. They may serve as indicators of tumor stage and grade as well as its usefulness for monitoring responses to treatment and predicting recurrence. Many chemical groups of markers are recognized including hormones, antigens, amino and nucleic acids, enzymes, polyamines, and specific cell membrane proteins and lipids, tumor marker might be found in cell, serum, tissue, urine and saliva. They are usually measured quantitatively and have many uses in the management of neoplasia. The tumor marker might be tumor specific but not organ specific and has a short half life.

There are several possible clinical uses for a tumor marker; it can be used to adjust risk categorization for an individual not affected by the disease, also it can be used for screening to detect an established cancer earlier than it would have been using standard clinical signs and symptoms. For diagnosing a newly cancer (differential diagnosis), some markers are tissue specific which have been used to establish the tissue origin of a newly diagnosed cancer. And for determine the prognosis in a patient with established cancer.