Introduction to peri-implants diseases

Osteointegration:  The direct structural and functional connection between living bone and the surface of a load-bearing implant -titanum- (considered as wound healing around the titanium implant)..

Periimplant soft tissues are similar in appearance and structure to periodontal soft tissues except there’s no cementum and no periodontal ligament.

The soft tissues consist of:

connective tissue covered by epithelium.

a gingival/mucosal sulcus,

a long junctional epithelial attachment,

a zone of connective tissue above the supporting bone

In implants there’s biologic width since there’s connective tissue.

Do implants have the same collagen of natural teeth? Vascularity? Resistance to infection?

Implants: connective tissue fibers are parallel to implants and never insert into implant surface so the resistance of tissue in implants less compared to the tissue in natural teeth.

Junctional epithelium in implant longer compared in natural teeth. Also the biologic width is wider in implant.

\*\*Note: the first line of defense/immunity -all parts of the body-: epithelium (to make mechanical barrier to protect the internal structure from the pathogens surrounding)

e.g: the main healing in periodontitis: long junctional epithelium.

When insert implant the body start build up epithelial barrier –the same function as junctional epithelium in the natural teeth-. Epithelial barrier (2mm) longer than JE (1mm).

In implant: more collagen fibers, less fibroblasts so it’s like scar tissues -which are less elastic and more collagenous-.

One of implant function: shock absorbant –one of PDL role- >> when occlusal trauma occur normally the body adapt by widening PDL or displacement of tooth but in implant there’s no adaptation so it will fracture …

Usually when they think to insert implant they try to make the first teeth contact at the natural teeth & at eccentric: light touch at implant.

The connective fibers are parallel to the implant surface without attachment to the metal body (adhesion). Consequently, the resistance to probing around implants is decreased as compared to that around teeth.