Dermatology

RF Cautery

RF CAUTERY - 3MHz

Radio Surgery with High Frequency Model - Heardz

The Technique of Radio Surgery involves the passage of high frequency radio waves(3mhz-Megahertz) through soft tissue to cut, coagulate, or remove the tissue. Soft tissue resistance to these radio waves causes the cellular water in the soft tissue to heat, which produces steam, results in cellular molecular dissolution of individual tissue cells.

The surgeon uses a hand piece with an active electrode (different type of electrodes for different applications) to transmit the radio waves. The radio waves are focussed on the tissue by an antenna plate (Patient plate) that is positioned behind the tissue in contact with patient's skin.

Radio surgery in general practise has many advantages over conventional surgical techniques particularly dermatological, plastic and eye lid surgery, ENT, Dental, quicker operating time ; rapid healing, less tissue damage and less post operative discomfort have been observed and its wider use in hospital practice is recommended.

Radio frequency is not to be confused with electro-surgery machine(surgical diathermy) spark gap circuitry unit(electro-cautery) and uses completely new technique compared with scalpal surgery and other techniques and Radio energy does the cutting very light. A very high frequency radio wave 0.5 - 3 MHz and needle or wire loop electrode which is held by the surgeon, radio energy passes between the cautery electrode and patient plate. It is concentrated at the needle end or wire loop electrode, resulting in the release of energy, which produces steam within the cells, thus vaporizing them and dividing the tissues