Clinical medical laser application using high power laser light offers the opportunity to destruct malignant and benign soft and hard tissue. Innovative developments in clinical endoscopic techniques allow for delivering high power laser light of up to 200W in continuous wave manner or 2J/pulse by single fibres. In urology high power cw laser application by means of side-firing laser fibres are in use for treating BPH-symptoms. With pulsed IR-laser applications urologic stone fragmentations were performed. Endoluminal laser treatment of incompetent great saphenous veins of patients suffering from varicosis is a promising new procedure offering fewer side-effect compared to conventional surgical stripping methods. In each of these procedures the combination of the suitable laser wavelength and laser power gives the basis for the laser-tissue interaction and its effects to achieve a sufficient treatment parameters for the benefit of the patient.