PURPOSE: The induratio penis plastica (IPP) or the so-called Morbus Peyronie is a burdening disease for patients with three main symptoms, induration, deviation and pain. The etiology of this fibrosing and plaque forming disease is largely unknown up to now. PATIENTS AND METHODS: The presented data refer to a retrospective univariant examination of 67 patients, which have been treated for IPP with soft X-rays in the Dermatological Clinic of the Technical University of Munich between 1990 and 1995. The aim of the study was to examine, how far a progression of the disease can be stopped with soft X-rays and how the pain symptomatic is reduced. RESULTS: In 58 of 67 examined patients (86.6%) a progression of the disease could be stopped. 25 out of 67 patients (37.3%) complained of pain before therapy. This symptomatic mostly improved totally in 21 patients (84% of the patients with pain). A complete or partial dissolution of the indurations was to be noticed in 41 of 70 indurations (58.6%). In 23 of 60 patients (38.3%) an improvement or totally regression of the deviation was observed. It could be shown that therapeutic outcome significantly correlates to a shorter duration of anamnesis (p< 0.05), smaller plaque size (p< 0.025) and a tendency to lower age of the patients. CONCLUSION: Radiotherapy of Morbus Peyronie is extremely effective and has a low rate of side effects.