

the intestine. The diagnosis is rendered more probable, if, in addition, free gas can be demonstrated in the peritoneal cavity. Pain in the hypogastrium, with vesical tenesmus and the passage of a small amount of bloody urine or an empty bladder, indicate rupture of that organ, while pain in one flank, with haematuria and the formation of a retroperitoneal exudate, suggests contusion or rupture of the kidney.—*Annals of Surgery*.

### THE PRINCIPLES OF PROTECTION AGAINST ROENTGEN LIGHT DERMATITIS

Carl Beck, New York, states that it is impossible to make definite rules for protection against the possible injuriousness of the Roentgen rays. It should always be remembered, upon first treating a patient, that an idiosyncrasy may exist, and that the only way to determine this question is by tentative exposures. When the light is used merely for diagnostic purposes, the possibility of an idiosyncrasy existing needs little consideration, for, by our present methods, the length of time for exposure is quite short, but when repeated exposures of ten minutes time are necessary, this question, as well as the one of ordinary cumulative irritation, should be considered, and, therefore, the intervals between the exposure should be made long, one week on an average. Protection in exposing for diagnostic purposes is a chimera; the shield, if used, obstructs the rays and the details of the skiagraph are lost. If the rays are used for therapeutic purposes, the possibility of susceptibility deserves attention. When treatment is for non-malignant disease, careful tentative exposures should precede it. The first exposure should be for five minutes, with a soft tube, and the light should be just strong enough to show the carpus of the operator black without structural details and contrasts to the soft tissues. The distance of the tube should be four inches from the skin. If after one week a repetition of the exposure causes no dermatitis, a third may follow, lasting ten minutes, and thereafter the part may be irradiated every second or third day, and at last daily, until reaction manifests itself. The vicinity of the irradiated area must be protected with a thick shield of lead. In treating malignant disease, entirely different principles govern. The object is to reach all malignant cells possible, and the shield should not be made use of. The patient suffering from malignant disease is irradiated