

446, Vol. XVI., 1892, records a case of uncontrollable renal hemorrhage in which nephrectomy was performed.

Hemorrhage may occur from an interstitial nephritis, which may be unilateral, affecting sometimes only localized areas of the one kidney. In a case mentioned by Nimier, p. 342, Vol. V., Von Bergmann's Surgery, only a single papilla was affected, but the bleeding continued until the kidney was removed.

Sabatier also reports operating in a case of hematuria, expecting to find stone in the kidney. The wound in the kidney bled so freely it was removed. Pathologically it showed nothing but a moderate degree of interstitial nephritis.

Elliott says, "Although unable to explain the fact adequately, clinical records show that a small patch of interstitial fibrosis may be the only microscopic change found in a kidney which has bled severely and persistently. The area of involvement may be so small as to escape the most careful search, and it is perhaps on this account that even to this day cases of "essential renal hematuria" with an unexplained pathology are reported. Possibly this might account for the hemorrhage in a case in Howard Kelly's clinic reported by Schenck in the *Medical News*, December, 1904, in which the kidney was exposed, split in two, a liberal portion removed for microscopic examination and the kidney replaced after suturing. The hematuria was cured, but no pathological condition was found.

Well authenticated cases of renal hematuria without symptoms due to stone have been reported by Fenwick and others. As a rule, however, in these cases, the hemorrhage is not profuse and in time other symptoms supervene. Senator, in Jacobson's Surgery, p. 704, 2nd Edition, reports a case of profuse hematuria, symptomless, in which nephrectomy was performed. The kidney appeared quite normal. As she belonged to a family of bleeders, Senator thinks that this case suggests that in some instances hemophilia is due to a local defect in the walls of the vessels. Grosplik, in Von Bergmann's Surgery, p. 342, Vol. V., reports a case of hemophilia inherited from both father's and mother's families, in which patient as a child suffered from profuse epistaxis, bled easily from the gums, and later had rectal hemorrhage. After the renal hemorrhages began the others ceased. Symptomless hematuria, as far as I have been able to learn, does not occur in renal tuberculosis. The fact that these cases are symptomless increases the obscurity of their etiology, and frequently renders a diagnosis very difficult and even impossible. In an interesting article in Vol. IV. of the sixteenth series of the *International Clinics*, Elliott, of Chicago, says: "Renal