When the kidney is not enlarged, as happens in such early stages, the lumbar incision is the better route for removal.

Nephrectomies.

SEPTIC.

Initial.	Age.	Medical Attendant.	Diseased Condition.	Result.
C. B.	24	Dr. Percy Kidd	Enormous pyonephrosis	Cured.
B.	44	London Hospital	Left calculous pyonephrosis	"
D.	36	Dr. Welsford, of Tiverton.	Right calculous pyonephrosis	"
C.	50	Dr. Fitzgerald	Right pyonephrosis	"
Miss W.	28	Dr. H. W. Webster	Left pyonephrosis	"
G. W.	70	Dr. Robb	Right pyonephrosis and villous growth	"
T.	54	Dr. F. W. Foott, of Enfield	Right pyonephrosis	"
S.	26	St. Peter's	Inflamed white kidney	"
H.	45	"	Right calculous pyonephrosis	"
J.	36	Dr. Stenson Hooker, of Hastings	Cystic kidney, nephritis, due to operation	Died eventually of septicity.
B.	3	Dr. A. Brown	Septic tuberculous pyonephrosis	Healed.

ASEPTIC.

H.	35	Mr. Waren Tay, Dr. Sutton.	Enormous hæmohydro-nephrosis	Cured.
H.	19	Dr. Percy Kidd	Calculus hydronephrosis	"
T.	37	Dr. Samuel Fenwick	Advanced hydro-nephrosis	"
H.	46	—	Carcinoma, lower end	Healed rapidly.
D.	54	Mr. Hall	Carcinoma of middle	Died of shock.
B.	59	Dr. Boissier, of Banbury	Papilliferous carcinoma	Healed rapidly.
Mrs. C.	32	Mr. Howse	Malignant adenoma	"
Mrs. C.	50	Mr. Jekyll	Carcinoma of a dilated calyx	"
K.	35	Dr. Nethercliff	Tubercle	"
Mrs. R.	31	Dr. Delamotte, of Staines	Tubercle and stone	"

21 cases. 2 died.

REFERENCES.

¹ BRITISH MEDICAL JOURNAL, 1890, Part ii, p. 894. ² These 100 cases form a consecutive series, and were reviewed in a paper read before the Brighton and Sussex Medical Society, February 4th, 1897. ³ The more I cystoscope patients in their own urine, and the less I wash out the bladder, the better are my results. Of course if there is blood or pus the bladder must be thoroughly washed out before the cystoscope can be used. In this case I do not undertake to cystoscope unless I am allowed to operate coincidentally, or unless the surgeon in charge is ready to start there and then with the operation. I never touch a case of obvious tubercle of the lower urinary tract. ⁴ Author, *Medical Annual*, 1896, p. 597.

CONTRIBUTION TO OUR KNOWLEDGE OF SOLUBLE URATES: PRELIMINARY NOTE.

By F. W. TUNNICLIFFE, M.D., M.R.C.P.,
From the Scientific Workroom, St. Bartholomew's Hospital.

My attention having been drawn to a letter in the *Chemiker Zeitung* of January 20th, 1897, by Dr. C. Goldschmidt on piperidine as a uric acid solvent, I desire to publish the following results which have been obtained by me, in conjunction with my chemical collaborators, Drs. Rosenheim and Schidowitz, independently. Our original intention was to complete, before publishing, our researches in regard to the solvency of the respective urates in the various media of pathological and physiological interest, as well as to determine the toxic equivalents of the respective bases. These researches, which we regard as of interest and importance, are at present approaching completion. The urates, the solubility of which we have determined, are (1) piperidine urate, (2) hexamethylenamine urate.

1. *Piperidine Urate*.—If 10 g. of uric acid be added to a solution of 5 g. of piperidine in about 50 c.cm. of water, the uric acid is completely dissolved in a very short time in the cold. The resulting urate of piperidine can be completely precipitated by a strong solution of sodium chloride, and can be subsequently purified by washing with alcohol and ether, in which liquids it is insoluble. The most interesting property of this salt is its solubility in distilled water, which

we have determined at the following temperatures:—The solubility at 17° C. or 62° F. is 5.3 per cent., at 36° C. or 98° F. is 9.1 per cent., at 100° C. is 25 per cent. A solution of the salt in water has a slightly alkaline reaction to litmus.

2. *Hexamethylenamine Urate*.—If 4 g. of uric acid be added to a solution of 3.5 g. of hexamethylenamine in about 100 c.cm. of water, and the mixture kept for some time on a water bath, a clear solution is obtained which does not give any precipitate on cooling. The resulting product may be obtained in the solid form by a method identical with that described under piperidine urate. The solubility of this salt, determined at the following temperatures, is at 17° C. or 62° F. 0.7 per cent., at 36° C. or 98° F. 3.3 per cent. A solution of this salt in water has a slightly acid reaction to litmus.

For the purposes of comparison we thought it would be interesting to give the solubilities of the following known urates:

¹ Piperazine urate at 17° C. is soluble to the extent of 2.0 per cent.

Lithium urate at 20° C. " " " 0.3 "

" " " 39° C. " " " 0.9 "

Potassium urate (acid salt) at 20° C. " " " 0.7-0.8 "

The physical conditions obtaining in the blood and other physiological and pathological fluids differ sufficiently from those in distilled water to render a separate research necessary before any suggestion can be made with regard to the probability of the above bases being of use in the treatment of lithæmia in the human subject. This matter we are at present investigating.

REFERENCE.

¹ Beilstein: *Handbuch der organischen Chemie*, B. I, 1334. We have been unable to confirm the high solubility ascribed to piperazine urate.

SEVERE CASE OF TYPHOID FEVER IN WHICH ANTITOXIN WAS SUCCESSFULLY EMPLOYED.

By P. R. COOPER, M.B. LOND., F.R.C.S. ENG.,
Bowdon, Cheshire.

As a supplement to the four cases recorded by Dr. Pope in the BRITISH MEDICAL JOURNAL of January 30th, the following brief report may prove of interest:

J. B., aged 29, a labourer, formerly a soldier, of strong physique (but rather alcoholic habits), had never been abroad, and his only previous illness had been an attack of "rheumatic fever" whilst in the army. He presented no cardiac lesion. On December 13th, 1896, he complained of severe pain and aching in the head, back, and limbs, shivering, general *malaise*, complete loss of appetite, and vomiting of everything taken by the mouth. He had also sore throat, enlarged glands in the neck, hoarseness, cough with thick

muco-purulent expectoration. The temperature was 103.2°, the pulse 96, and the respirations 30, the tongue was furred,