

Sometimes the tumors begin as ulcerations, or as little blisters or pustules, which soon transform into ulcers, increasing in size and resembling the first group. Clinically they seem to be somewhat more malignant than the latter, but still give a good prognosis. Of 14 cases, 7 were radically cured by operation, 2 have remained 2 years without recurrence, and 5 have ended fatally.

Of the grand total of 223 patients 140 were males and 65 females (18 times the sex is not stated). In the first group are found 94 males and only 29 females; in the second 5 males and 6 females, and in the third 12 males and 15 females.

The localization of the tumors was :

UPPER EXTREMITY	-	-	-	-	-	-	-	-	-	-	-	89
Humerus	-	-	-	-	-	-	-	-	-	-	-	14
Forearm	-	-	-	-	-	-	-	-	-	-	-	18
Dorsum of hand (fingers)	-	-	-	-	-	-	-	-	-	-	-	56
Palm of hand	-	-	-	-	-	-	-	-	-	-	-	1
LOWER EXTREMITY	-	-	-	-	-	-	-	-	-	-	-	134
Thigh	-	-	-	-	-	-	-	-	-	-	-	23
Leg	-	-	-	-	-	-	-	-	-	-	-	75
Dorsum of foot (toes)	-	-	-	-	-	-	-	-	-	-	-	19
Sole of foot (heel)	-	-	-	-	-	-	-	-	-	-	-	17
												223

The author concludes from his able monograph that "cancers of the extremities give 56% of definite cures after operation, barring the rare cases that develop in congenital warts; the latter, as it appears, terminate, without exception, fatally." In most instances of cancer of the extremities amputation is unnecessary, moreover, a thorough extirpation will result in permanent cure, if the bones have not been invaded or a spontaneous fracture has not occurred.

FRED KAMMERER.

SUPRAPUBIC LITHOTOMY IN RUSSIA.

Dr. Nikolas V. Solonika, of Tiflis, in an Inaugural Dissertation at St. Petersburg, published during the present year, has collected and analyzed 491 cases of suprapubic cystotomy made by Russian surgeons during the period from 1823 to 1888. The work of this author ap-

pears also in the Transactions of the Third General Meeting of Russian Surgeons, 1889, and in the *Khirurgichesky Vestnik* for April and May, 1889. The following digest of this elaborate contribution to statistics will be found valuable and instructive:

In 5 of the cases the operation was performed for removing bougies (2 cases, with 2 recoveries) or tumors (3, with 1 recovery and 2 deaths) from the bladder, and in the remaining 486 for vesical calculus, 62 of the latter referring to the pre-antiseptic period and 424 to the antiseptic one.

I. *The preantiseptic group*.—Of 62, in 1 the issue is unknown, 38 recovered, 23 died. Of the latter, in 4 death followed from accidental causes (erysipelas, pneumonia, etc.). The actual mortality from the operation, therefore, was 30.6%. Death was caused by peritonitis (6 cases), hæmorrhage (1), pyelonephritis (1), pericystitis et peritonitis (3), pericystitis et pyelonephritis (1), pericystitis (1), cystitis et nephritis (1), cystitis (1); the cause unknown in 4.

Age.—Thirty patients were aged from 1 to 5; 8 from 5 to 10; 9, from 10 to 15; 6 from 15 to 70; 9, age is unknown.

Sex.—Eight cases referred to girls, the remaining to boys and adult men.

The weight of the stone varied between 1 and 328 grammes.

The after-course, in a great majority of cases, was exceedingly severe (high fever, various complications).

II. *The antiseptic group*.—Of 424, 365 recovered, 59 died. In 12 of them the lethal issue did not depend upon the operation; hence the actual mortality was 11.1%. The *causes of death* were peritonitis (17 cases), hæmorrhage (1), uræmia (5), pyelonephritis (9), cystitis et pyelitis (1), cystitis et nephritis interstitialis (1), pericystitis et colitis (1), unknown in 12.

The antiseptic group may be divided into six sub-groups, according to the degree of vesical and renal lesions, etc. The *first sub-group* includes 226 cases with normal urine; 204 of these recovered, 22 died. The *second* consists of 67 cases with alkaline turbid urine, yielding a profuse muco-purulent deposit, the patient's general nutrition mostly failing, the temperature febrile. Of them 57 recovered, 10

died. The *third* embraces 66 cases with fetid albuminoid urine, high emaciation and fever, and intense disturbance of micturition; 49 recovered, 17 died. The *fourth* includes cases of recidival stones, 8 in number, with 6 recoveries and 2 deaths. The *fifth*, with 25 cases, refers to vesico prostatic stone and sacculated stones or calculi complicated with vesical tumor, the patient's general state being as in the third sub-group; 23 recovered, 2 died. The *sixth* concerns such cases where any particulars in regard to the general state and urine were absent. Of 32, 26 recovered, 6 died.

Sex. Twelve cases referred to females (1 woman, 11 little girls), the remaining to males. *Age* may be seen from the following table:

YEARS.	PATIENTS.				DIED.			
1 to 5	-	-	120	-	-	-	-	17
5 to 10	-	-	117	-	-	-	-	10
10 to 15	-	-	43	-	-	-	-	6
15 to 20	-	-	23	-	-	-	-	3
20 to 25	-	-	30	-	-	-	-	5
25 to 30	-	-	18	-	-	-	-	1
30 to 35	-	-	6	-	-	-	-	2
35 to 40	-	-	5	-	-	-	-	1
40 to 45	-	-	4	-	-	-	-	3
45 to 60	-	-	12	-	-	-	-	3
60 and upwards	-	-	11	-	-	-	-	3
Not known	-	-	35	-	-	-	-	5

The stone's weight varied from 0.2 to 5.45 grammes. On the whole, the average weight of the concretion increased with the patient's age. It was 6.6 grammes in the patients aged from 1 to 5; 9.9 in those from 5 to 10; 18.1 in those from 10 to 15; 27.8 in those from 15 to 20; 54.6 grammes in those from 20 to 25, etc.

III. *The operation.* 1. In an overwhelming majority of cases sectio alta was performed after the usual (Garson-Petersen's) rules with filled bladder and rectum, and only in six cases without filling either of the organs.

2. *Accidents or complications during the operation itself* (analysis referring to the total series of high lithotomies). The peritoneum was wounded in 3 (1 death); torn on extraction of the stone in 2 (1 death); spontaneously ruptured during vomiting just after the operation in 1;

found adherent to the symphysis in 2; profuse hæmorrhage occurred in 9 (2 deaths); moderate in 20; difficult extraction of the stone in 33 (15 deaths); lithotomy simultaneously performed in 14 (4 died); *sectio alta* combined with other operations (lateral and median section, external or internal urethrotomy, etc.) in 22 (8 deaths); protrusion of the peritoneum into the abdominal wound in 30 (2 deaths); of viscera in 1 (died); of the vesical mucous membrane in 5 (3 deaths); of the perivesical cellular tissue in 11; bladder torn during the extraction in 3; perforated with an itinerarium in 1; incised crucially in 7, secondarily in 3; stone could not be extracted in 1 (died); could not be found in 1; complicated with a tumor in 2.

3. *The treatment of the vesical and abdominal wound.* In an enormous majority of the cases, the treatment consisted in inserting either a single drainage-tube into the bladder, or two tubes, one into the viscus, the other into the antevesical space. In 69 (16.3%) cases the vesical wound was closed with sutures totally; in 48, (16.3%) only partially; in 6 its lips were stitched to the edges of the abdominal wound. The mortality in the total closure cases was as low as 5.8% (and that notwithstanding the fact that in 43% of the cases the urine was changed very considerably); in 34.8% of the cases the wound healed *per primam*, the after-course being either wholly apyretic or nearly so. In 67 of the 69 cases, catheter *à demeure* was simultaneously employed.

IV. *The after course* was wholly apyretic in 110 cases or 25.9% (of the antiseptic group); almost so in 75 (17.7%); was slightly febrile in 58 (13.6%); considerably febrile in 77 (18.1%) was protracted in; 59 (13.9%).

V. *Recovery* ensued in apyretic cases, on an average, in 24.3 days; in almost apyretic ones in 33.9; in slightly febrile in 34.4; in considerably febrile in 34.9; and in protracted in 76.8. In 415 cases recovery was as complete as possible. Only in 9 cases the results were less satisfactory, to-wit: in 2 cicatricial hernia developed; in 4 fistule at the site of the wound remained; in 2 perineal fistula after another lithotomy persisted; and in 2 retention of urine which had existed before the operation did not disappear after the latter.

A most careful, minute and elaborate analysis justifies Dr. Solonika in laying down the following general propositions:

1. The modern technique of *sectio alta* is perfect. Any further would-be improvement à la Rydygier and Langenbuch are only apt to unduly bring the operation in discredit.

2. Suprapubic cystotomy is an easy and safe surgical procedure. In that regard it can be compared only with median lithotomy.

3. Leaving aside some exceptional cases, a total closure of the vesical wound with sutures must be resorted to as a matter of routine.

4. The best method of closure is that of G. F. Tiling, that is, the *étage* suture. The best material for it is chromicised catgut. The best instrument a round needle.

5. Be the total closure impracticable, one of the following two methods should be applied, *a*, either the vesical wound should be closed partially and supplied with drainage (connected with a syphon apparatus); or *b*, a drainage tube should be inserted into the bladder, and the patient kept on his abdomen or side. Both of the methods prevent any urinary infiltration quite effectually.

6. The abdominal wound should be always closed down to the site of the drainage, and that best with an *étage* (catgut and silk) suture. The attachments of the recti abdominis must be always left intact.

7. In all cases strict antiseptic measures (including dressing) must be practiced from the beginning to the end. The patient must be duly prepared for the operation (nutritious diet, etc.).

8. In cases of high section, urinary infiltration occurs by no means more frequently than in cases of lithotomy after other methods. It is just possible that it occurs even less frequently than after median or lateral sections.

9. Death, when occurring, is caused, as in other lithotomies, by peritonitis or some lesions of the urinary organs.

10. In cases of small-sized concretions, with good urine, and of a more or less short duration, the high operation gives comparatively less satisfactory results than median lithotomy. On the contrary, in cases of medium-sized or large stones, accompanied by bad urine and prolonged sufferings, high cystotomy secures by far better results than the median operation.

11. Many modern surgeons are inclined to perform the high operation in unsuitable cases—that is, in such cases where the stone weighs less than 2 grammes and measures less than 2 centimetres in diameter.

12. Lateral lithotomy, as giving the largest mortality in severe cases and most frequently followed by the worst sequels of lithotomic procedures, must be discarded altogether. The only legitimate operations for vesical stone are lithotrimy, sectio alta and median section.

13. The choice between the high and median operations must be based on the following general postulates: *a.* In cases of small-sized calculi, measuring under two cm. in diameter, median lithotomy should be performed, which allows an easy removal of the concretions without crushing them or inflicting any traumatic injuries to the bladder and prostate. The after course in such cases is usually very good; the operation does not leave any fistula or incontinence of urine. Very often the latter commences to flow *per vias naturales* even on the second day, while the wound heals rapidly *per primam*. *b.* In cases of larger stones, the high operation is by far the better of the two. Most frequently, it secures an excellent after-course and complete cure. Any untoward results are observed much less frequently than in cases of median section (when the latter is resorted to in cases of the kind). *c.* In all cases where the stone is lying in a diverticulum, or if tightly grasped by the vesical walls, or where the calculi are multiple, or where there is present a vesico-prostatic stone, the high operation must be invariably performed, since it gives in such cases by far more satisfactory results than the median one. *d.* Any more or less marked enlargement of the prostate constitutes a contraindication in regard to median lithotomy.

14. Litholapaxy is an ideal operation for vesical stone. Unfortunately, at present it remains yet accessible to relatively few surgeons (on account of its difficult technique, expensive instruments, etc.). But in the course of time it will gradually supersede, to a considerable extent, all lithotomic procedures.

VALERIUS IDELSON.