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BY

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Ruptured and Crippled.

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NOTES ON

CASES OF HERNIA WHICH HAVE RELAPSED

AFTER VARIOUS OPERATIONS FOR RADICAL CURE.*

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DURING the past three years there have been recorded at the Hospital for Ruptured and Crippled a large number of cases of hernia which have relapsed after various radical operations. With the aid of Dr. S. E. Milliken, assistant surgeon to the hernia department, efforts have been made to get the histories of these patients from hospital or private records, in the hope of furnishing some statistical evidence of the value of different methods. A complete record has been possible only in a small number, owing to various causes. The carelessness of patients as to dates and names, the inability of many to speak English correctly, the incompleteness of hospital histories, and the forgetfulness of operators, have, together with the time necessary for such investigation, made the task so difficult that I am not disposed to seek for further definite information in this direction. But, as I have formed some convictions from

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the material at hand, crude and straggling as it is, I beg to present them for your consideration.

The total number of relapsed cases is one hundred and nineteen. Seven cases, in which the patients give a history of two or more (in two instances three) operations for the same hernia, have been excluded on account of unsatisfactory data. In seventy-three cases the method of operation has been definitely ascertained, and I have therefore, for the sake of brevity, arranged these in tabular form. (Table A.)

A few facts extracted from this table are worthy of comment: The ages average about the same in all the methods—from thirty-eight to forty-four—showing that the extremes of life have generally been avoided. The duration of treatment, practically wound-healing, in Czerny's method, where the pillars of the external ring and the integuments are carefully sutured, is almost as great as in the open method. This confirms my own experience in operating that the wound is a difficult one in which to obtain absolute primary union, and is an argument in favor of allowing it to granulate. It is to be especially noted that relapses have occurred as late as two years and six months and three years and four months, and that on an average no method shows immunity from recurrence for a longer period than fifteen months. This warrants the statement that future evidence as to the value of different methods must cover an experience of more than three years, and that patients who have been without recurrence for a year have no reason to expect to remain so permanently.

The uncertainty of the event of recurrence may be further illustrated by reference to Tables B and C, in which I have given the cases more in detail, in the hope that they may furnish a clew to operators desirous of completing their records.

B. *Summary of Cases of Reducible Hernia relapsing after Operations presumably for Radical Cure; Method Unknown.*

Nature.	Age.	Hospital treatment.	Relapse.	No truss.	Truss.	Hospital.
1. Inguinal...	50	?	?	..	1	Post-grad. Hosp., Jan., 1886.
2. " ...	70	?	4½ mos.	..	..	St. Mary's, B'klyn, Mar., 1889.
3. " ...	32	7 wks.	9 mos.	..	1	Gouverneur Hosp., Mar., 1890.
4. " ...	66	2 mos.	2 mos.	..	1	Private, 1872.
5. " ...	45	3 wks.	?	..	1	St. Peter's, Brooklyn, 1886.
6. " ...	26	4 "	1 yr.	1	..	St. Luke's, 1890.
7. Ing. double.	45	9 "	6 mos.	1	..	Charity Hosp., Jan., 1890.
8. " "	46	2½ mos.	5 wks.	..	1	St. Luke's Hosp., Jan., 1886.

Number, 8; average age, 48; average treatment, 7 weeks; average relapse, 24 weeks; no truss, 2; truss, 5; truss unknown, 1.

C. *Summary of Cases of Irreducible or Strangulated Hernia which have relapsed after Operation; Method of Operation Unknown.*

Nature.	Age.	Hospital treatment.	Relapse.	No truss.	Truss.	Hospital.
1. Femoral..	40	6 wks.	6 wks.	..	1	Private, Oct., 1888.
2. Inguinal..	64	?	?	1	..	Bellevue, June, 1887.
3. " ..	45	6 wks.	2½ mos.	1	..	St. Catharine's, B'klyn, Oct., '88.
4. " ..	48	3 mos.	?	..	..	Bellevue, 1889.
5. " ..	35	2 wks.	?	..	1	St. Francis's, Oct., 1888.
6. Ing. irred.	20	4 "	4 wks.	..	1	Prague, Bohemia, 1886.
7. Umbilical.	70	2 "	?	1	..	Association Hosp., Feb., 1889.
8. Inguinal..	27	?	?	..	..	German Hosp., July, 1889.
9. " ..	35	?	2½ yrs.	1	..	Berlin, April, 1887.
10. " ..	49	10 d.	?	..	1	Roosevelt, 1882.
11. " ..	28	16 wks.	1 yr.	1	..	99th St. Hosp., June, 1889.
12. " ..	?	3 "	5 "	..	1	New York Hosp., April, 1885.
13. " ..	40	6 "	8 "	..	1	St. Francis's Hosp., 1878.
14. " ..	25	4 "	?	1	..	Bellevue, June, 1888.
15. " ..	66	3 "	1 wk.	1	..	Bellevue, Jan., 1888.
16. Ing. irred.	28	4 "	6 mos.	1	..	Presbyterian Hosp., April, '90.
17. " " ..	?	4 "	3 "	1	..	Manhattan Hosp., June, 1890.
18. " " ..	55	4 "	7 "	1	..	Harlem Hosp., May, 1891.
19. Inguinal..	34	5 "	2 "	1	..	Gouverneur, Jan., 1891.
20. " ..	6	6 "	6 wks.	..	1	Ireland, 1886.

Number, 20; average age, 40; average treatment, 5 weeks; average relapse 18½ months; no truss, 10; truss, 7; truss unknown, 3.

Table B gives eight cases, presumably operated on for radical cure, since the herniæ were reducible and the operations have been performed within the past five years. Relapse ensued after an average period of twenty-four weeks. Table C gives twenty cases of irreducible strangulated hernia subjected to operation within eight years, without any data as to method. A radical cure may or may not have been attempted. A relapse occurred on an average at eighteen months.

Although these cases must be a small proportion of the number operated on in the past few years in this vicinity, they certainly demonstrate that many methods are defective and likely to prove disappointing, if observed for a sufficient length of time. Now that ten years have elapsed since the modern radical operations have been in vogue, we ought to hear of, or have presented to us, patients who have been more than five years (at the least) without relapse. We could naturally expect to see such cases occasionally at a special hospital. But there are none such. At present there are recorded in our books forty-six patients who have been subjected to radical operations and who present no sign of relapse and who have been furnished with trusses. Of these, only five have been under observation for over three years, eight for less than two years, and thirty-two for less than one year. Various methods are represented. In a series of one hundred and thirty-six cases of radical-cure operation that I reported to the American Surgical Association last May, there were only four cases which had been over four years without recurrence.

There have come under my notice, however, some striking cases of immunity from relapse after operation. These are included in the following table. They represent cases of irreducible or strangulated hernia in which no attempt at radical cure has been made. This has been as-

sumed from the date of the operation (prior to the introduction of modern methods), or is known from the statement of the operator. There are eighteen of these cases, the patients averaging forty-five years of age, or a little older than the cases in the other table. The period at which the relapse occurred varies from one month to twenty-three years, and is, on the average, five years. It is to be noted that fifteen of these patients wore trusses from the time of the operation.

D. *Summary of Cases of Irreducible or Strangulated Hernia relapsing after Operation. In these no radical cure has been attempted. This has been ascertained in some instances from the statement of the surgeon; in others it is assumed from the date of the operation.*

Nature.	Age.	Hospital treatment.	Relapse.	No truss.	Truss.	Hospital.
1. Inguinal..	28	?	9 yrs.	..	1	Dublin, 1880.
2. " ..	42	?	3 "	..	1	Private, 1875.
3. " ..	45	?	5 "	..	1	? 1865.
4. " ..	32	?	6 "	..	..	London, 1883.
5. " ..	57	8 d.	4 "	..	..	Dr. W. R. Fisher, Hoboken.
6. " ..	54	2 mos.	5½ "	..	1	Presbyterian Hosp., 1884.
7. " ..	46	4 wks.	1 "	..	1	Private, 1864.
8. " ..	28	2 mos.	9 "	..	1	Dublin, 1880.
9. " ..	36	2 mos.	2 mos.	1	..	Roosevelt, 1878.
10. " ..	11	?	2 yrs.	..	1	Dr. Dennis, Jan., 1880.
11. " ..	76	?	?	..	1	Germany, 1839.
12. Femoral..	56	6 wks.	10 mos.	..	1	Private, 1878.
13. Inguinal..	37	4 "	?	..	1	Jersey City, Aug., 1885.
14. " ..	64	2 "	23 yrs.	..	1	Lyons, France, Oct., 1838.
15. " ..	60	2 "	1 mo.	..	1	Dr. Milliken, Aug., 1890.
16. " ..	30	2 mos.	2 yrs.	..	1	Dublin, May, 1881.
17. Femoral..	40	4 wks.	1 yr.	..	1	Dr. Shradly, Oct., 1884.
18. " ..	60	1 mo.	?	..	1	Private, 1860.

Number, 18; average age, 45; average treatment, 5 weeks; average relapse, 5 years; no truss, 1; truss, 15; truss unknown, 2.

I can not offer any statistical data bearing on the question of the effect of a truss in preventing relapse or pro-

longing "cure." The figures are quite contradictory. In several cases—half a dozen, roughly speaking—it is recorded that the hernia was out of sight till the truss was discontinued or broken. I am sure that it is safe to state, in general, that the largest or most voluminous protrusions were met with in patients who had worn no truss, and, furthermore, that I have never seen any evidence of damage to the repaired structures by the pressure of a truss. I think the majority of surgeons approve of its use to prevent relapse, and I have always had my patients fitted immediately after the wound was healed, and directed that the pressure made by the spring should be very slight—do nothing more than support the parts. A well-fitting truss applied to a hernia soon after its appearance, and kept in order, can rarely be said to do harm. How can it do harm to the parts when there is no protrusion?

I believe that much that has been said against it can be laid to the score of the operation and the condition that the parts are left in by it, rather than to the truss. If supuration is prolonged in the wound and it is compelled to heal by granulation, a cicatrix of less vitality and less elasticity than the normal skin and subcutaneous fat is left. This structure is not tolerant of pressure. Excoriations are easily created on the surface, and patients are, every now and then, obliged to lay aside their truss to permit the abraded surface to heal. A prompt primary union, which restores the parts as nearly as possible to their normal condition, will not be unfavorably affected by the truss. On the other hand, in a wound with much cicatricial tissue, there is a natural tendency to soften and yield, and this tendency will be hastened by the pressure of a truss without and the viscera within. If this theoretical statement is accepted, it will be agreed that an essential feature of every method should be the prompt healing of the wound.

There is something to be learned from the inspection of the site of the hernial orifice in the relapsed cases and from its character. Sometimes there is bulging of the whole line of the inguinal canal and subsequent protrusion; in others there is first a yielding and protrusion at the site of the external or internal ring. When the relapsed hernia is well developed, the canal seems to preserve some degree of its original obliquity, except in cases operated on by the open method. Here the orifice is not unlike that of a ventral hernia—an opening in the wall without any canal, so that the hernia protrudes directly forward. This condition makes greater difficulty in the adaptation of a truss, which is further enhanced by the thinness of the yielding cicatrix. In several instances I have seen the peristaltic movements of the intestine through such a hernial covering, and in two cases an adhesion of the omentum to this cicatrix made all efforts of coughing or straining painful, while the truss pressure was almost intolerable. It must be stated that, at different periods after operation—from three to six months—the cicatrix of the open operation is to be recognized by its depressed situation and firm, contracted, and dense character. At a later period it begins to yield in places, or all along its line, and ultimately presents the features mentioned above.

Frequent contact with these patients gives rise to the belief that the majority, while not cured, are certainly improved. This goes without saying in the cases of irreducible or strangulated herniæ. Even with relapsed hernia patients find much satisfaction in the fact that the protrusions are not so large as before operation, or they experience increased comfort and security in the wearing of the truss. Whenever, in reply to the question, "Are you better or worse since the operation?" patients have expressed themselves as "worse," it has usually been found that the

truss had not been worn at all, or that the cicatrices of the wounds presented signs of their having healed by granulation, with subsequent yielding of the cicatrices. These experiences may be exceptional, I admit, and, if so, I hope to have them contradicted or offset by the observations of those who have had opportunities of watching the result of open operations. There have been numerous advocates of this method, in this country particularly, and the average results may be better than those which I have seen.

In conclusion, let me repeat the statement with which I began—that these straggling notes do not afford any valuable evidence as to the comparative reliability of different methods, but only emphasize lack of promise to effect a cure. In view of the trifling mortality now attached to these operations, in view of their recognized advantage in improving the conditions of irreducible, uncontrollable, or strangulated hernia, it is wise to continue to strive for better methods. Surgeons who have led the way in the past, devising and perfecting the still unsatisfactory methods, may be expected to make further improvements and advances. There can not be too many of these efforts, nor can they be too varied so long as life is not endangered. But I hold, after the knowledge of these failures and in view of the well-established fact that after the old operations for hernia recurrence has been often long delayed, that it is wise to drop the term “cure” and to estimate the value of given procedures by the relative proportion of relapses. That plan will be judged the best which shows the smallest number of relapses in course of the longest period of observation. And such period ought to be at least five years. Furthermore, I believe that all procedures should be so devised as to insure prompt healing of the wound, and that the support of a truss should be insisted on from the time the patient leaves his bed.



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