All of these positive cases proved to be fatal. In one of them the stool was obtained before the patient's death. In one of the 15 cases the result was unsatisfactory owing to the premature death of the monkey. These results suggest that

TABLE III.—Results of Stool Tests for Poliomyelitis Virus

Type of Case	Total Patients	Day of Disease Stool Collected	No. of Patients	No. Positive for Polio. Virus	No. Neg.	Unsatisfactory Tests*
Poliomyelitis ..	15 {	3-10	9	8 {	1 {	0
Polio-encephalitis ..	5 {	11-18	6	1 {	4 {	1
Polio-encephalitis ..	5 {	9-79	5	0	5 {	0
Polio-encephalitis ..	3 {		3	0	2 {	1
"Benign lymphocytic meningitis" ..	6 {	4-6	5	0	4 {	0
Neuritis ..	6 {	7-21	1	0	1 {	0
		6-8	4	0	4 {	0
		9-14	2	0	2 {	0

* The experiment was considered unsatisfactory if the monkey died (without developing poliomyelitis) before the termination of the 4-week (post-inoculation) period of observation.

the amount of virus present in the intestinal tract was greater in the more severe than in the milder cases of poliomyelitis in this series—a finding which has not to our knowledge received comment before, and one which may not hold true for juvenile cases. Another point, however, in the interpretation of the high percentage of positive results from the fatal cases (which for the most part were fulminating in type) is that most of the "stools" were collected *earlier* in the disease (on the third to tenth day) than in the other poliomyelitis cases. It has long been recognized that the chances of obtaining positive results are greater during the first than during the later weeks of the disease.

Other Cases (Groups II, III, and IV).—All tests for virus in the stools from cases other than typical poliomyelitis proved negative. Several of the monkeys developed fever without symptoms of myelitis and were killed. Histological examination of the spinal cord proved negative, and no doubtful positive results were obtained; but, needless to say, failure to find poliomyelitis virus in such cases does not necessarily exclude the disease.

Summary

The stool test as a confirmatory means of diagnosis in clinical poliomyelitis has been used in 15 cases of typical poliomyelitis, 17 atypical cases, and 3 contacts, which occurred in British and American troops stationed in the Middle East during 1943.

From the 10 fatal cases of poliomyelitis the isolation of virus from stools was accomplished in 9 instances.

Negative findings have been encountered in the remaining 5 (non-fatal) cases of poliomyelitis (one test was unsatisfactory), and negative results were likewise encountered in 20 "atypical" cases (and contacts)—viz., 5 cases of polio-encephalitis, 6 cases of "acute benign lymphocytic meningitis," 6 cases of neuritis, and 3 poliomyelitis contacts. The negative virus findings do not wholly exclude the possibility of poliomyelitis.

Griquet and vervet monkeys, obtainable in East Africa, are highly susceptible to experimental infection with poliomyelitis virus.

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SYMPATHECTOMY AND STERILITY

BY

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A patient upon whom I performed a lumbar sympathectomy some years ago was recently on trial on a charge of "incest." His defence was that as the operation had rendered him sterile it was impossible that he could be the father of his daughter's child. This information he had culled from a surgeon whom he had consulted subsequent to the operation, but before the alleged crime was committed. As removal of part of the lumbar sympathetic chain is now performed with considerable frequency, and in view of possible legal implications, it is time that the question of any resultant sterility should, if our knowledge warrants it, be unequivocally settled.

The physiologists have a good deal to teach us regarding the mechanism of ejaculation and its dependence upon the autonomic supply to the base of the bladder. The course taken by the sympathetic supply is apparently a long one down through the so-called "lumbar splanchnics" and the pre-aortic plexus, coming particularly from the first lumbar contribution. As this part of the lumbar chain is not usually removed in the ordinary operation, the sympathetic fibres concerned with ejaculation should escape. But whatever the physiological and anatomical considerations, the practical outcome is whether in fact patients who have submitted to the operation can procreate and whether their semen is normal.

It has proved more difficult than would be expected to get definite evidence to answer the first question. For reasons unconnected with physical sterility these patients appear very rarely to become parents after the operation. However, I know of two cases in which a child was born subsequent to the operation. The second question is more readily answered. I have examined several specimens of semen obtained from such patients which to my inexperienced eye appeared normal, but a more complete examination of some of the specimens has been carried out by Dr. D. Embleton, to whom I should like to express my thanks. Sample results are as follows:

Examination of Semen after Sympathectomy

Case 1.—Aged 42; proximal type of thrombo-angiitis obliterans; one year after operation. Volume of seminal fluid, 1.5 c.cm.; pH, 8.0; colour, greyish white; number of spermatozoa, 212 millions per c.cm.; differential count, normal forms 54%, abnormal 46%; hanging drop, about 50% motile.

Case 2.—Aged 50; distal type of thrombo-angiitis obliterans; ten years after operation. Volume of seminal fluid, 1.5 c.cm.; colour, greyish white; number of spermatozoa, 162 millions per c.cm.; hanging drop, 83% motile.

This should be sufficient to convince the most sceptical jury in a criminal case.

Comment

The thoroughness of the sympathectomy (which did not include the first lumbar ganglion) in all cases was, as usual, confirmed by microscopical study of the parts removed, as well as by the subsequent clinical history and sweating tests. This type of sympathetic denervation therefore produces neither sterility nor impotence, and so we can set at rest the minds of those who may hesitate to suggest lumbar sympathectomy, when otherwise advisable, on account of the fear of sterility.

It remains a philosophical paradox that a mechanism as characteristically parasympathetic in its functioning as sexual intercourse should require powerful sympathetic activity for its consummation. Possibly the paradox really lies in our conception of an essential opposition in the action of the two systems, an idea encouraged by much physiological teaching.

A comprehensive statistical and epidemiological review of typhoid fever in Egypt from 1935 to 1942 was contributed by Dr. A. M. Kamel and Dr. G. A. Messih to the *Journal of the Egyptian Health Association* for December, 1943. A reprint of this review can be seen in the library of the B.M.A.