by passing a thin hernia bistoury along my finger (Fig. 7) and thus to relieve the stenosis, and this could have been done with perfect facility had it been considered advisable.

FIG. 7.

The problem of cardiac surgery has frequently attracted the attention of both physicians and surgeons, and two years ago the BRITISH MEDICAL JOURNAL summed up, in an admirable article, its history and position at that time. It is now being attacked with characteristic energy by several American surgeons from various points of view. On the experimental side Duff Allen, by means of a most ingenious optical device, has succeeded in actually seeing the mitral valve in the cat and in dividing a cusp, using

the approach through the auricular appendage. On the clinical side Cutler, after an elaborate experimental investigation, succeeded in excising portions of stenosed mitral valves in human beings by means of an ingenious valvulotome, working through the ventricle. The operation was, however, necessarily blind and proved to be somewhat dangerous. It appears to me that the method of digital exploration through the auricular appendage cannot be surpassed for simplicity and directness. Not only is the mitral orifice directly to hand, but the aortic valve itself is almost certainly within reach, through the mitral orifice. Owing to the simplicity of the structures, and, oddly enough, to their constant and regular movement, the information given by the finger is exceedingly clear, and personally I felt an appreciation of the mechanical reality of stenosis and regurgitation which I never before possessed. To hear a murmur is a very different matter from feeling the blood itself pouring back over one's finger. I could not help being impressed by the mechanical nature of these lesions and by the practicability of their surgical relief.

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BRITISH MEDICAL JOURNAL (leading article), September 22nd, 1923, p. 530.

SYPHILIS AND ANEURYSM:

AGE AND SEX INCIDENCE AND CAUSE OF DEATH IN AORTIC ANEURYSM.

BY

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IN the account, published in the JOURNAL of May 16th (p. 928), of the discussion on aneurysm in the Section of Medicine of the Royal Academy of Medicine in Ireland, Dr. Speares referred to 30 cases of aneurysm in only 13 of which there had been a positive Wassermann reaction. As I have had occasion lately to look up my own experience on the influence of syphilis in predisposing to aneurysm I found this number of positive tests surprisingly low, because in every one of 19 men and in 3 of 5 women in my own hospital beds with thoracic aneurysm, regarding whom there was a definite statement about a previous history of syphilis or in whom the Wassermann test had been performed, there was evidence of syphilis. I therefore asked my house-physician, Mr. A. R. Somerford, to look up the experiences of some of my colleagues on the Manchester Royal Infirmary staff, and with their permission, for which I thank them, he has done so, with the results recorded below. The total number includes my own cases.

During the last few years 56 cases with undoubted clinical evidence of intrathoracic aneurysm, and in which there were definite records of a history of syphilis or of the results of a Wassermann blood test, were admitted to the wards of the Manchester Royal Infirmary. Of these 56 cases 47 were men and 9 were women. In 52 cases, or 92.85 per cent. (45 men and 7 women), and in 43 of the 45 men (95.5 per

cent.), there was a definite history of previous syphilis or a positive Wassermann test.

The Wassermann blood reaction was positive in 40 out of 44 cases tested (90 per cent.). Of the two men in whom the test was negative and regarding whom there was no negative syphilitic history, one, aged 51, had a definite aneurysm according to x-ray findings; while the other, aged 53, had an intrathoracic tumour which "looked like an aneurysm" by x rays. Of the two women without a definite Wassermann reaction the serum of one, who was aged 51, gave delayed lysis in 1 in 5 dilution, and the x-ray findings in the other, aged 53, were only "suggestive of aneurysm." The ages of the 52 patients with positive test or history of syphilis varied in the men from 29 to 68, and in the women from 37 to 70, and were grouped in decades as shown in the following table.

TABLE I.—Age and Sex of Cases with Evidence of Syphilis.

Age.	Males.	Females.
Under 30 ...	1	0
31-40 ...	3	1
41-50 ...	20	4
51-60 ...	16	1
61-70 ...	5	1
Total ...	45	7

TABLE II.—Age and Sex Incidence of 200 Cases of Aortic Aneurysm found post Mortem.

Age.	Males.		Females.		Total.	
	Cases.	Per cent.	Cases.	Per cent.	Cases.	Per cent.
21-30 ...	13	7.5	2	7.4	15	7.5
31-40 ...	65	37.6	5	18.5	70	35.0
41-50 ...	52	30.0	14	51.85	66	33.0
51-60 ...	37	21.5	6	22.2	43	21.5
61 and over	6	3.4	—	—	6	3.0
Total ...	173	86.5	27	13.5	200	100

The average age at death of the above cases was 43.87 years. It is important to note that in 42.5 per cent. of all the cases death occurred before 40 years of age, and in 75.5 per cent. before 50.

Age at Death in Aneurysm, Tabes Dorsalis, and General Paralysis.

It is interesting to compare the age at death in aneurysm with that of tabes dorsalis and general paralysis of the insane, all of which are said by some authorities to be caused by syphilis only.

Tabes Dorsalis.—Byrom Bramwell has published his experience of the age at death of 258 cases of tabes in the subjoined table (see *A System of Syphilis*, D'Arcy Power and J. Keogh Murphy, 1909, vol. iii, p. 185; see also article on syphilis and life assurance by the present writer).

TABLE III.—Age at Death in Tabes Dorsalis.

Age.	No. of Cases.	Per cent.
20-30 years...	37	14.3
31-40 " ...	121	46.8
41-50 " ...	70	27.0
51-60 " ...	25	9.6
61 " ...	5	1.9
Total ...	258	99.6

Here we see that 61.1 per cent. of the cases died before 40 years of age, and 88.1 per cent. before 50. The average age at death is not stated, but it must have been about 40, and not more than 44.

General Paralysis.—For general paralysis Byrom Bramwell found in his own practice and in the Scottish Widows Fund insurance experience that the average age at death in 66 cases was 43 years. In Allbutt and Rolleston's *System of Medicine* (second edition, vol. viii, p. 365) G. H. Savage gives the ages of 425 subjects of general paralysis from asylum returns: 62 per cent. occurred before 40 years of age and 89 per cent. before 50 years of age. The average age at death is not stated, but it must have been about 40, and not more than 44.

TABLE IV.—Age Incidence of Aneurysm, Tabes Dorsalis, and General Paralysis.

	Below 40.	Below 50.	Age at Death.
Aneurysm	42.5 per cent.	75.5 per cent.	43.87 years.
Tabes dorsalis	61.0 ..	88.0 ..	40-41 ..
General paralysis of the insane	62.0 ..	89.0 ..	40-44 ..

The average age at death in all three diseases is the same within a year or two—a fact which supports the view that they have a common origin.

Rupture as a Cause of Death in Aneurysm.

The cause of death and the frequency of rupture as a cause is an interesting point about aortic aneurysm, and I published the *post-mortem* experiences of the Manchester Royal Infirmary (over forty years on this subject) in a lengthy paper in the *Medical Chronicle* (May and June, 1909), with short notes on 182 cases of aneurysm of the thoracic and abdominal aorta in all its marked forms and in those which the various pathologists did not consider severe enough to warrant being called aneurysmal. Mr. Somerford looked up the records from 1909 to the present date, but for sacular aneurysm only, and has added the 43 cases he found notes of to 168 of this form previously recorded by me.

Without going into details of all the causes of death, it will suffice to say how often it occurred from exhaustion or sudden heart failure and how often from rupture. This the subjoined table shows, and it will be seen that rupture occurred in less than half of the cases.

TABLE V.—Heart Failure and Rupture as a Cause of Death.

	Number of Cases.	Exhaustion and Heart Failure Percentage.	Rupture Percentage.
Saccular aneurysm:			
First part of the arch	64	54.7	42.2
Second and third parts of the arch	63	30.0	33.3
Ascending thoracic aorta	23	35.7	53.5
Abdominal aneurysm	15	13.3	80.0
Dissecting aneurysm	6	50.0	50.0
Dilatation	35	57.1	23.6
Total	211	42.2	41.7

I have much pleasure in thanking Mr. Somerford for his valuable help in the preparation of these notes.

TWO FORMS OF DERMATITIS DUE TO THE USE OF METHYLATED SPIRIT EXTERNALLY.

BY

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THE increasing restrictions imposed by the excise authorities on the use of alcohol have led to the occurrence of various irritations of the skin in persons who are compelled to use commercial alcohol. Amongst those hitherto unaffected are surgeons, who use spirit for the purpose of disinfection, and also hairdressers employing spirit lotions and spirit soaps. Prosser White¹ notes that pyridine and methyl alcohol used in polishing trades may give rise to chronic dermatitis of the hands.

During the last twelve months an outbreak of severe dermatitis occurred amongst the surgeons at the Manchester Royal Infirmary, and more recently a closely comparable eczema has been produced amongst the employees of a certain firm of barbers in the same town.

The dermatitis occurring in the hospital was produced on the hands and arms of five members of the surgical staff and several theatre nurses. The condition was proved to be due to the alcohol by a process of exclusion of all other factors—the soaps, the disinfectants, and the process of laundering being changed without effect. When the use of spirit ceased, the dermatitis ceased also. The lesions were of a dry eczematous type and affected particularly the webs of the fingers, the wrists, and the fore-arms. The lesions were intensely irritable and commenced within twelve hours of exposure; in certain cases fissuring of the skin and superficial bleeding occurred when the trouble became severe. Only one of the persons affected was predisposed to eczema. The exact chemical irritant concerned in these cases was not isolated, but a change of source of supply checked the appearance of lesions.

The outbreak among the barbers was more extensive and more severe in its results, although two of the cases occurred in men who had had general eczema (from unrecognized causes) elsewhere on the body. Ten definite cases were found within a few months, and in all these the men had been in the same occupation for many years—periods varying from three to twenty years. Several of the other employees complained of itching, burning, and tingling of the hands after using certain of the preparations. The ten cases examined showed the following characteristics:

Case 1.—Aged 46. Complained of irritation of the hands and wrists for two weeks. Suddenly developed a very severe dermatitis with oedema, fissuring, pain, and general desquamation of palms, anterior surface of wrists, and between the fingers. The condition settled rapidly on cessation from work and application of sedative lotions. In the employ of the firm four years.

Case 2.—Aged 28. Complained of burning of the hands during the last six weeks. Developed blisters on contiguous surfaces of fingers and on palms after using "friction" lotions. Condition almost disappeared during the forty hours' rest provided by the week-end. Stated that he has produced a dermatitis of the face by the application of "friction" lotion to his chin. A dotted vesicular condition of the palms with patchy erythema was produced by the giving of three scalp applications during one day. In the employ of the firm five years.

Case 3.—Aged 33. A very severe case with intense oedema and serous exudation of both hands and wrists. This was the first case affected and was the most severe. He now appears to be sensitized to any form of methylated spirit, and can only work with rubber gloves when compelled to use spirit shampoos or frictions. Was employed for five years.

Case 4.—Aged 35. Irritation commenced in July, 1925; he persisted in his work for ten days in spite of mild desquamation. Suddenly the hands became inflamed, oedematous, and discharged freely. The fingers were so inflamed as to prevent flexion. Fissuring and bleeding followed. The wrists also were affected. The condition disappeared entirely with two weeks' rest. He resumed work, but after giving two applications of lotions the entire dermatitis recurred in an even more severe form. Has been in the employ of the firm for fifteen years.

Case 5.—Aged 35. Has had recurrent mild dermatitis of hands on several occasions. It always disappeared after a week's rest from work. After using the applications he feels a "biting" sensation all over the hands—if this is repeated the skin peels off and the hand swells up, reddens, and becomes very irritable. He states that attacks can be prevented by oiling the hands before employing lotions or frictions, though several applications will penetrate through this and give rise to trouble. At present he has a mild squamous dermatitis which is almost entirely interdigital. This is a patient who has had dermatitis elsewhere on the body previously. Has been in the employ of the firm three years.

Case 6.—Aged 35. Has a moderately severe dermatitis on the right wrist and on the webs of the fingers. States that he has a marked "burning" sensation after the use of any of the spirit lotions.

Case 7.—Aged 20. Has some dermatitis of the backs of the hands and wrist with dry scaling and fissuring. This disappears when he is away from work for a few days. Complains of irritation after the use of friction. Has been in the employ of the firm twelve months.

Case 8.—A milder case showing dry, slightly erythematous fissuring and scaling on the skin on the webs of the fingers of the left hand. There is some slight dermatitis also on the right hand which is very irritable at night. Has been in the employ of the firm for three years.

Case 9.—Exactly similar to Case 8. Duration in both cases one month. Has been in the employ of the firm six years.

Case 10.—Shows a chronic and scaled patch of dermatitis about three inches in diameter over the first interphalangeal space of the right hand. Has been in the employ of the firm for six years.

The firm concerned gave the writer every assistance in investigating the cause of the outbreak, and a full analysis