nique used. For instance, with technique A, when the treatment was given in small doses every three weeks until four to six or seven treatments were given in all, the flushes came on more gradually and were noticed less. Out of fifty-one cases (technique A), only seventeen (33 per cent.) complained of flushes; none noticed a change in weight; two had very decided nervous symptoms (but in both cases they had already been under nerve specialists), and one lost her migraine attacks. Of the 124 cases (technique B and C) seventy-nine complained of flushes (63 per cent.), eighteen had increased in weight, five had decreased, nine suffered from fewer nervous symptoms, and seven who had always been "nervy" or neurotic remained so.

Of the sixty-seven cases (technique D, in which the necessary dosage is given in sixty-four minutes on one day, or divided into two doses on consecutive days), forty-six complained of flushes (68 per cent.), eleven of increase in weight, three of decrease; ten suffered from fewer nervous symptoms, whereas five of the cases confessed to always being "nervy" and remaining so.

Sexual Reactions.—I have found it more difficult to estimate these, and I can only give anything like reliable statistics in those cases of married patients I have actually interviewed, and upon whom I have made records. Sexual reactions depend upon so many different factors—general health, nature of work, occupation of leisure, temperament and psychology, or on factors such as fear of pregnancy (except in the hysterectomy and permanent α -ray castration cases). The health, occupation, and temperament of the husband also play a part. For instance, in two cases recently questioned the husband had been insane and was home temporarily on certificate. It has been found that in the operated cases two out of twenty-three complained of a definite decrease in sexual reaction, whereas in twenty-nine of the α -rayed cases none did.

Conclusion and Summary

One may say from a study of the cases that:

1. Each method of induction has its definite function. Surgical operation is the correct method for all cases in which malignancy or degeneration of the non-malignant fibroid is suspected, for all young patients in whom myomectomy may be possible, and for all cases in which the fibroid uterus is of a certain size and causing pressure symptoms. Irradiation is the treatment of choice in all cases of climacteric haemorrhage, with fibrosis uteri or small interstitial fibroids, in which there is no suspicion of carcinomatous or sarcomatous degeneration.

2. The menopausal symptoms are no more severe—indeed, not as severe—in the irradiated cases than in those of the normal climacteric.

3. The temporary amenorrhoea caused by irradiation is a valuable method of treatment in certain cases of psychosis and tuberculosis.

4. The risk of malignant disease occurring in an irradiated uterus is no greater than, if as great as, the risk of carcinoma occurring in it, or in any other organ of the body in an untreated case.

5. Accuracy in diagnosis is here, as in all other fields of medicine, one of the essential factors in successful treatment. To ensure success, therefore, the patient must remain under the care and supervision of the gynaecologist, who, if he does not himself undertake the radiological part of the treatment, will at any rate work in the closest co-operation with the radiologist—an easier ideal to attain now that so many gynaecological departments have their own intensive α -ray plant and an adequate supply of radium.

LATE RESULTS OF INJECTION TREATMENT OF VARICOSE VEINS

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At the present time the standard treatment of varicose veins is by injections. The history of the introduction of the method, the few simple points in the technique, and the immediate reactions and possible complications are now so well known as to need no mention. There have been signs lately, however, that some observers are not finding the late results of injection treatment as satisfactory as the early results had led them to hope. The most striking contribution on these lines is that of Howard, Jackson, and Mahon,¹ who found that in forty-eight cases treated by injections and followed up all showed evidence of recurrence when re-examined at the end of a year. The time seemed opportune, therefore, for a re-examination from this point of view of the earlier cases treated at the Middlesex Hospital varicose vein clinic, and 100 consecutive cases treated by injections at the clinic two or more years previously were asked to attend for examination. Fifty of the 100 attended, while a certain number of the others replied and described their present condition; but it was decided to confine attention to the fifty cases actually re-examined.

SCOPE OF INQUIRY AND RESULTS

The series showed the usual variation, and included early cases in which the patient came with a single prominent vein giving only cosmetic offence, advanced cases with large tortuous veins occupying the greater part of both legs, and cases complicated by ulcers and dermatitis. For the present inquiry the complications were, as far as possible, ignored, and attention was centred on the effect of the injections on the veins. The solution that had been used for injection in most instances was quinine and urethane. The number of injections naturally varied from one only in the very early cases to forty-one in an advanced case.

After the patients had been re-examined and the condition compared with that noted and charted on their first attendance, they were classified as: (1) cured; (2) improved; (3) not improved. Into the category "cured" were placed those cases with no subjective symptoms and no objective signs of recurrence of the varicose veins. Into "improved" were placed those in which symptoms were absent, although definite objective signs of varicose veins were still present, or cases in which both symptoms and signs, though still present, were less marked than before treatment. Into "not improved" were placed the cases in which the symptoms were as bad as, or worse than, before treatment, and in which no objective improvement could be found. The numbers falling into each group were:

1. Cured: five cases, or 10 per cent.
2. Improved: thirty-one cases, or 62 per cent.
3. Not improved: fourteen cases, or 28 per cent.

On analysing the cases further it was found that the five cases of the "cured" group were all early cases in which originally both symptoms and signs had been slight. It will be seen that the majority of the cases fell into the "improved" group; all the patients in this group stated that they felt benefited by the treatment, even though in some cases the veins had again become

as prominent as before treatment. Of the fifty cases re-examined, therefore, in only 10 per cent. had a cure resulted, using the term "cure" in the sense that the patient had been made free, and remained free, of symptoms and signs up to the time of the re-examination. In the remaining 90 per cent. marked objective evidence of varicose veins was again present, although in the majority of these symptomatic relief had been given.

NATURE OF THE "RECURRENCE"

The point next arises whether the veins found at the re-examination represented veins not obliterated by the treatment, fresh veins developing subsequent to the treatment, or veins originally obliterated which had again become patent. While there is no doubt that some of the "recurrences" represented incomplete original treatment or the development of further veins, a careful comparison of the condition found on re-examination with the original notes and diagrams made it obvious that, in the majority of cases, recanalization of obliterated veins had taken place. Without being able to give exact figures on this point we are satisfied that recanalization of varicose veins obliterated by injections is a frequent event and a common cause of recurrence. It is unlikely that recurrence is related to the solution used for injection, as the mode of action of all "sclerosing" solutions is probably similar (Patey²). In the present series the solution chiefly used was quinine and urethane, but recurrence was also observed after the use of the other solutions; it probably depends on the tendency of thrombosed veins to recanalize rather than on the particular solution used.

PRESENT POSITION OF TREATMENT FOR VARICOSE VEINS

In the literature, while there are many references to recurrence after injections, detailed analyses of the results of the treatment are not common, and such figures as there are vary. On the one hand, Sicard and Gaugier,³ in the 1931 edition of their book on the injection treatment of varicose veins, stated that, in their experience, only 4 per cent. of all patients treated returned for further treatment, and only 1 per cent. had true recurrences in the obliterated veins. On the other hand, Howard, Jackson, and Mahon¹ stated that recurrence was the rule following injections. Delater,⁴ in his recent book on diseases of veins, takes up an intermediate position, but, commenting on the fact that 20 to 25 per cent. of his hospital patients returned for further treatment within four years, he writes:

"Un variqueux guéri de ces dilatations par la fibrose ne doit donc jamais être abandonné, parce qu'il n'est pas guéri de son insuffisance veineuse."

Of significance also in this connexion is the appearance lately of papers advocating a combination of surgical treatment and injections as being less likely to be followed by recurrence (de Takats and Quillin,⁵ Wright⁶), and of papers analysing the pathological basis of recurrence (Theis⁷).

Considering the whole question of the injection treatment of varicose veins in the light of the late results it would seem that for most cases injection should be regarded as a useful means of palliation rather than as a cure, and that, as with most new forms of treatment, the original estimates of its value were too enthusiastic. It would be unwise, however, to go to the other extreme, because in spite of its limitations injection treatment, either alone or in combination with surgical measures, is probably for most patients with varicose veins still the best that can at present be offered. Moreover, recanalized veins seem to respond as readily to a further course of injections as the original veins.

But the limitations of injection treatment do indicate that finality on the question of the treatment of varicose veins is as yet far from having been reached. At present the tendency in many clinics is towards combining, where possible, surgical treatment—in the form of either ligature or excisions—with injections, both as a means of shortening the time of treatment and in the hope that the end-results will be better. This type of combined treatment is not new, having been advocated by Tavel⁸ as long ago as 1904, although it was never extensively adopted. In more recent years papers on the subject have been published by d'Allaines and Roseau⁹ in France, de Takats and Quillin⁵ in America, and Wright⁶ in this country. De Takats has recently analysed 200 cases treated in this way. At the Middlesex Hospital varicose vein clinic the present practice is to remove under local anaesthesia a segment of the main superficial vein whenever it can be demonstrated that pressure on it in the standing position controls the superior reflux, and to follow this up with injections to the peripheral veins. The immediate results are satisfactory, and the addition of the surgical procedure seems in most cases to shorten the length of treatment; but whether the end-results will be more satisfactory than those of pure injection treatment remains for the future to show.

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THE INCIDENCE OF PULMONARY DISEASE FOLLOWING EXPOSURE TO VESICANT AND ASPHYXIATING GASES

BY

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The following is an appreciation, a summary, and an analysis of 118 appeals heard by the War Pensions Appeal Board in Auckland during its mid-year session, 1932. The cases are those of men who appeared before the Board for the first time. Upwards of 100 other appeals by men who had previously been before the Board were heard at this session, but are not included in this review. I am indebted to the chairman, the Hon. Sir Walter Stringer, for his permission to use the official records of the Board in compiling this paper, and the facts and figures are wholly derived therefrom.

During my three years and 306 days of active service in the great war I was engaged as a regimental medical officer and ambulance officer with the New Zealand Division in the battle areas in Egypt, Anzac, and France, and can claim to have first-hand knowledge of the use of gas in war and of its effects on the exposed troops at the time of exposure. The vesicant properties of the so-called "mustard gas" were apparent in innumerable cases, its potency being such that it caused intense hyperaemia and even blistering through the thick khaki clothing. The morale of the men was such that only severe cases were evacuated, and the percentage evacuated would not bear any relation to the total number with demonstrable evidence of cutaneous or respiratory damage. Contributors to the literature on gas damage have differed widely as to the incidence of pulmonary fibrosis following exposure, but all agree that fibrosis is a possible sequela.