THE PALLIATIVE TREATMENT OF SALPINGITIS.*

By JAMES YOUNG, D.S.O., M.D., F.R.C.S.E., F.C.O.G., and T. N. MACGREGOR, M.B., Ch.B.

THE danger of extirpating Fallopian tubes during the active phase of an inflammatory process is now generally recognised. The last occasion on which we removed such a tube was in March 1924. The case was a woman, aged 30, who six weeks before had an abortion at the third month and who was admitted to hospital with an acute pyosalpinx. Death occurred two days after removal of an adherent pus tube, which ruptured during the dissection. This tragic sequel following closely on the experience of a colleague who, in the same ward some weeks before, had two such fatal cases, led to a complete reversal of our attitude in regard to the management of this condition, and to the adoption of the treatment which is the subject of this paper.

The treatment of salpingitis was the main topic for discussion at the British Congress of Obstetrics and Gynæcology at Manchester in 1927.[1] With few exceptions the speakers at that discussion emphasised the danger of operating at a time when the infective organisms in the tube could be presumed to be alive. Thus, Hendry[2] reported 24 operations on acute and subacute cases with nine deaths, and Beckwith Whitehouse[3] stated that he had lost three successive cases in whom he removed the tubes for acute pyosalpinx.

Whilst, as we have said, the opinions expressed at this Congress were generally against operation during the acute phase and in favour of the view that, treated palliatively, such cases usually abated quickly, there was a sharp division of opinion in regard to the ideal management of such cases in their subsequent course. Some observers advocated operating once the acute features had subsided, whilst others, notably Curtis of Chicago, urged that by delaying a decision it often followed that there was a complete disappearance of all the clinical features and, therefore, of any need for operation at all. Basing his remarks especially on gonorrhœal cases he claimed a clinical cure by palliative measures in 90 per cent. Hendry

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of Glasgow presented evidence to support this point of view. He recorded 78 acute cases (gonorrhœal and septic) treated palliatively, with clinical cure in 71 or 91 per cent. In seven, operation was carried out at a later date.

If the adoption of a palliative course, in contrast to treatment by extirpation, leads to a saving of life it is clear that this must be the method of election, and our choice would not be affected by the finding that the patients surviving the more drastic measures exhibited a better average recovery than those in whom the inflamed tubes were allowed to resolve spontaneously. It has sometimes been argued that once infection of the tubes has occurred there is a considerable risk of the condition settling down into a chronic pelvic inflammation with the production of tubal and ovarian abscess and adhesions which determine persisting pelvic and general ill-health. For these reasons it has sometimes been concluded that the sooner, consistent with safety to life, the organs are removed the quicker will be the recovery of the patient. Some such attitude forms the basis for the practice of those who, whilst they discountenance operation in the acute phase, are in the habit of carrying out a laparotomy once the active symptoms have abated.

That infected tubes treated along entirely palliative lines exhibit a very high tendency towards complete clinical recovery is suggested by the records of Curtis and Hendry, to which we have already alluded. According to these observers the incidence of such recovery may be as high as 90 per cent. Further, we have to note that the method which alone can be expected in general terms to offer any prospect of functional recovery, including fertility, is that based on palliation. It is notorious how widespread throughout the pelvis the inflammatory process may be in the early phases and how drastic the extirpation must then be if a complete eradication is aimed at. Palliation possesses the advantage that whilst, of course, it cannot promise functional recovery, it at least generally offers the best chance for the retention of the organs, on which if need be reparative surgery at a later date can exercise its ingenuity for the purpose of restoring function. In this connection it is important to note that an acute infection of the tubes may resolve spontaneously and be followed by pregnancy. Several of the speakers at the Manchester Congress cited cases of this nature and, as we shall later mention, our experience has provided further illustrative examples.

The Palliative Treatment of Salpingitis

It was from such considerations as those we have reviewed above that some eight years ago in our treatment of infected tubes we were led to adopt a method based upon palliation carried out to the extreme limit; that is, we have delayed the consideration of any active operative interference until the fullest possible trial of spontaneous cure has been given.

The treatment consists of rest in bed, the application of hot fomentations to the abdomen and, at a later stage, of hot douching or diathermy. In the acute phase morphia is exhibited. In gonococcal cases attention is directed to the elimination of the infection in the lower reaches of the genital and urinary passages. After the subsidence of the acute symptoms a chronic cervicitis is treated by cauterisation. After discharge from hospital the patient reports periodically. In the event of a fresh "exacerbation" she is readmitted for a continuation of the palliative measures. Where there are unresolved inflammatory masses associated with persisting pelvic and abdominal distress, or general ill-health which can be attributed to the tubal condition, the patient is readmitted for radical operation.

The only breaches of these rules which we have allowed ourselves have been (1) where immediate laparotomy has been necessary in doubtful cases to eliminate the possibility of appendicitis or tubal pregnancy, and (2) where there has been found an abscess which can be tapped through the posterior fornix. In regard to (1) we have in the present series opened the abdomen three times for diagnostic reasons, and, finding infected tubes, we have reclosed the abdomen without interfering with the inflamed area. In three cases in which exploration was carried out with a provisional diagnosis of salpingitis we have found respectively appendicitis, endometrioma, and an ovarian cyst exhibiting torsion. In regard to (2) we have by colpotomy opened an abscess secondary to pelvic peritonitis in four cases. There have been two further cases in the series in which fibromyoma of the uterus was complicated by double pyosalpinx. It is our experience that acutely inflamed appendages when complicated by fibromyoma do not respond well to palliation. It is possible that this is due to the inflammatory process tending to extend into the uterine tumour, with the production in this of œdema and tension and of local pain and a general reaction.

Analysis of Cases.—During the past three and a half years we have had 55 successive cases of salpingitis in a total of 2004 admissions, or 2·7 per cent. In 51 cases the condition was associated with acute symptoms and palliative treatment was carried out. Ten of these cases were re-admitted on one or more occasions for further palliative treatment and in two laparotomy was ultimately performed, with, in one, supravaginal hysterectomy and removal of the appendages on both sides and, in the other, removal of the right appendages. In one case after readmission the evacuation of an abscess by posterior colpotomy was carried out. There was, further, one case in which subsequent to discharge the patient gave birth to a baby and thereafter was admitted to another clinic where thickened appendages were removed.

In the remaining four cases the patients at their original admission suffered from chronic pelvic symptoms associated with pyosalpinx, and in these abdominal extirpation of the diseased appendages was performed. In two of these cases the tubes were found to be tuberculous.

Results.—The outstanding fact is that in this total of 55 successive cases treated along the lines indicated there has been no hospital mortality.

A *follow-up*, by means of a personal visit of the patient to the clinic or by the reply to a questionnaire, has been possible in 40 cases, with the following results:—

Clinical cure	27
Improved and able for work	9
In statu quo (1 with hydronephrosis) . . .	2
Dead	2
	40

The majority of the 15 cases untraced consist of young women of the lower social scale with no fixed abode.

In the case of the nine women marked as improved there has been a subsidence of the pelvic pain and discomfort, and, although they do no not enjoy complete health, they either feel or they have been advised at the clinic that no further hospital treatment is necessary. If we direct our attention to those cases in which the treatment had been entirely palliative (including vaginal evacuation of an abscess) and whose subsequent health has been ascertained, we discover that out of a total of

33 women who at one time suffered from acute salpingitis, 30, or 90 per cent., have made a complete or adequate clinical recovery.

Of the three cases in which at a subsequent date excision of the appendages was necessary, the follow-up proves two to be clinically cured, whilst one—the case already referred to as having been operated upon at another clinic—is still ailing. On investigation she proved to be a half-witted pauper suffering from inanition and to have no gynæcological cause for her ill-health.

Of the two women who died subsequent to discharge from hospital, in one her medical attendant informs us that death was due to chronic nephritis. The second case was a woman who was admitted to the ward in an emaciated condition, in whom an abscess was evacuated by posterior colpotomy. The purulent vaginal discharge thereafter continued for some weeks during her stay in hospital. She was treated for some months at the Astley Ainslie Institute with some benefit and was then discharged home, where she gradually sank and died. On reviewing this case the possibility arises that we were dealing with a pelvic tuberculosis complicated by septic infection. At no time was there any question of her condition being suitable for more drastic treatment.

Subsequent Pregnancy.—The follow-up has shown that in 5, or 12·8 per cent., pregnancy has occurred subsequent to discharge from hospital.

The frequency with which infected tubes can recover their patency would form an interesting study. So far we have not found it possible to conduct such an investigation on any consecutive series of cases. We have, however, as a matter of interest, selected for investigation by means of X-rays after lipiodol injection five cases who had been under treatment in the clinic for gross disease associated with large inflammatory masses in the pelvis. In two of these cases we found evidence of patency, whilst in three the tubes were sealed.

It was interesting to find that in all these cases the lipiodol passed freely into and along the greater part of the tube, indicating that, even where there was permanent blockage at the fimbriated end, the uterine end of the tube was canalised. It would seem not unlikely that in this well-known phenomenon we have an explanation of the usual tendency to rapid resolution, exhibited by such cases, for with the continuing patency

of the inner end of the tube we can visualise how the subsidence of the acute inflammation may allow the discharge to drain away through the uterus. It is well known, of course, that in the presence of a gross disintegrative change, as, for example, in tuberculosis, a marked and progressive distension of the tube can occur. On the other hand, we have seen cases in which a large pyosalpinx has become quickly resolved. In this connection we recollect especially one case in which the abdomen was opened to exclude the possibility of tubal pregnancy. A large acute pyosalpinx was found and the abdomen was closed without any interference being carried out. When seen within three months the symptoms had completely subsided and, moreover, there was now no evidence of any tubal swelling.

On the continuing patency of the uterine opening of the tube may depend some of the other clinical features of these cases. Thus, for example, Curtis has urged that in gonorrhœal cases the so-called exacerbations of salpingitis are due to reinfection from below. It is obvious that from this tubal patency, on which depends the speedy recovery under suitable conditions, there may, under different circumstances, arise the persisting vulnerability to a fresh infection.

Discussion.—The foregoing record indicates the very high tendency to natural recovery in salpingitis. Whilst strongly confirming the advantages of the attitude of expectancy now generally adopted in the management of salpingitis in the active clinical phase, it lends support to the contention of those observers who have urged that a continued expectancy results in a clinical cure in the great majority of cases. Curtis and Hendry have placed the incidence of spontaneous recovery at about 90 per cent., and our figures are found to be similarly high.

Our record refers to a consecutive series of unselected cases admitted to a gynæcological ward and it may, therefore, be taken as representing a typical experience. In this connection one or two remarks are called for. It will be noted that in the course of a period of three and a half years there have been only four cases in which inflamed appendages have been subjected to operation at the time of admission because of a history of chronic symptoms. The explanation of this very low figure is found in the fact that with our increasing knowledge of the tendency to natural recovery exhibited by

the condition we have found it possible by bringing some of these patients under the influence of the usual palliative measures—rest, douching, diathermy, etc.—to establish a spontaneous resolution even in cases with a chronic history. It is interesting and a little amusing to find that in the series there is one patient with inflammatory masses in the tubo-ovarian region who refused operation recommended for the alleviation of her chronic symptoms, and who, three years later, is found to have made a very satisfactory spontaneous recovery.

We have not been able to determine with any accuracy a differentiation of the cases into gonorrhœal and pyogenic. In 12 out of the total of 55, or 21·8 per cent., the history has dated from childbirth or abortion giving a presumptive diagnosis of septic infection, although, of course, it is known that such a history cannot be held to exclude completely a gonococcal source. In two out of the seven cases in the series which came to abdominal operation tuberculosis was discovered. It has to be admitted, of course, that the adoption of the palliative treatment to the degree practised by us may result in the missing of a proportion of such cases, especially as it is well known that a tuberculous salpingitis may be associated with no distinctive clinical features and may be revealed only at operation or even only after microscopic examination of the excised tubes. Without wishing to raise on this occasion the important and difficult question of the ideal management of cases of pelvic tuberculosis in women, we would, however, state that we are, in so far as our personal views are concerned, tending to doubt the expediency of subjecting such cases as a routine to operative measures.

In all the cases of this series except one the history has originated in or has dated from the childbearing period. The exception was a woman of 55, in whom the first symptoms developed acutely 21 days before admission. Under palliative treatment she made a satisfactory recovery. That acute salpingitis appearing for the first time at this comparatively late period of life is of considerable diagnostic significance is suggested by the fact that we have during this period had in our private practice two similar cases, both in women in the neighbourhood of 60. In all three cases the onset was acute, being associated with severe lower abdominal pain and tenderness, febrile disturbance and grave general upset. The clinical

features, in other words, have been those typical of an acute abdominal crisis. In each case there has been marked tenderness and rigidity over the breadth of the lower abdomen. A characteristic feature on which it was possible to base a differential diagnosis from the ordinary acute abdominal lesions, such as appendicitis, was marked and widespread tenderness and fullness on pressure on the vaginal vault.

REFERENCES.

[1] *Journ. Obst. and Gynæc. Brit. Emp.*, vol. xxxiv., 1927, p. 185, *et seq.* [2] *Ibid.*, p. 373. [3] *Ibid.*, p. 192. [4] *Ibid.*, p. 199.