in a pocket book and to rewrite these on the proper cards at some later stage. The great danger of this method is that the rewriting tends to be postponed until exact details of the findings are no longer clearly remembered. A receptionist can be taught to rewrite the notes, but this presupposes legible and accurate original notes. In such a case it would be best to write down only the bare essentials in a set form, for instance name, diagnosis, treatment and whether it was a night call, a hospital visit, or an ordinary house call. One doctor uses specially printed loose-leaf books for this purpose. However, one must face the fact that it requires constant self-discipline for the busy and often harrassed GP to keep such records consistently. This is borne out by the stated observation that no practice in this country seen for the purpose of the above-mentioned thesis had any notes available about house or hospital visits.

3. THE FILING OF SPECIALIST REPORTS

The filing of specialist and laboratory reports, and any other correspondence relating to particular patients is the third requirement of a successful record system. In this respect it can be stated summarily that no method other than the stapling of the reports to the actual history cards will give satisfactory results. However carefully or correctly reports are filed in a separate cabinet or box, they will not be constantly referred to, if extra effort is necessary to locate them during consultation.

Only when it is absolutely unavoidable will the doctor allow himself the time and effort to look up an old report. Immediate and automatic availability is the only way to ensure constant reappraisal of old reports. For this reason foolscap-sized cards are essential. Reports can then be stapled to the back of each card to form a chronological record of previous referrals, X-ray reports, etc. This enables the doctor to glance back at the old reports while the consultation is in progress and will often bring to light interesting facts which would otherwise have remained undiscovered. As an example may be mentioned the discovery that a patient presenting with blood and mucus in the stools had a barium enema or a laboratory examination for the same complaint, 10 or more years ago. Even the most impressive clinical memory will fail to guarantee such knowledge unless the old reports are automatically available.

The habit of attaching the report to the cards in a folded condition is to be condemned, as this also tends to prevent easy and immediate referral to previous examinations. This is one of the many drawbacks of smaller-sized cards. Few specialists will make use of stationery larger than foolscap.

SUMMARY

An attempt has been made to present a workable record system for general practice. That a dire need for revision and vigorous propaganda does indeed exist is proved by the fact that lamentably few doctors keep adequate records. The record system as described, is a compilation of methods and ideas observed in many practices both in this country and overseas.

During visits to other practices it has always been important to note that most over-ambitious schemes tend to fall into neglect and that the simplest practical system is the only one which will survive the hustle and bustle of general practice. It is useless to be naïve about the ability of most busy doctors to practise the rigid self-discipline required to keep an intricate record system up-to-date. The separate filing and, for all practical purposes, consequent disregard of old specialist reports, is a good illustration of this point.

REFERENCES


DUPLICATION OF THE VERMIFORM APPENDIX

G. MAIZELS, B.SC., M.B., CH.B., F.R.C.O.G., Port Elizabeth

One of the extremes of variation to which the appendix is subject is duplication, of which 40 cases have been recorded. At the other extreme is congenital absence of the appendix, of which there are over 70 known cases, and which should be diagnosed only in an unscarred abdomen.

In his review of the comparative anatomy of appendix duplex, Cave\(^1\) states that cases fall into 2 categories: (a) Supernumerary appendix due to persistence of a transient embryological structure of great morphological interest; and (b) appendicular duplicity incidental to a more general affection of the primitive mid-gut. Descriptively there are 3 main types:

Type A. Single caecum with one appendix exhibiting partial duplicity.

Type B. Single caecum with 2 obviously separate appendices.

Type C. Duplicity of the caecum, each caecum bearing its own appendix.

Type C, the least common, is associated with duplication of the colon and with multiple abnormalities incompatible with life. In type A, the commonest type, partial duplication can manifest itself in numerous ways.

Type B is the one of chief clinical interest to the surgeon. It includes the 'bird-type' of duplication, consisting of 2 appendices, symmetrically placed on either side of the ileocaecal valve. Waugh\(^2\) describes a 'taenia coli' type, where one appendix arises at the normal site and the smaller (or rudimentary) appendix arises along the lines of one of the taeniae.

Duplication of the appendix is not often encountered in adults, in whom it is usually discovered during an operation for acute appendicitis. Most specimens have been obtained from newborn infants, often stillborn, and from young children.\(^3\)

The case that is now recorded is one of the more unusual varieties of partial duplication; namely bifurcation of the appendix.

CASE REPORT

Mrs. J. S., aged 35, was being investigated for infertility. Her only pregnancy had ended in a septic abortion in 1961, otherwise there was nothing of note in her previous history.
Her only other complaint was occasional pain in the right iliac fossa.

On physical examination, the patient was overweight at 210 lb., but active and healthy. The only abnormality discovered was a very tender cystic right ovary. After a series of investigations with negative results had been completed, she was advised to have a diagnostic curettage and partial resection of the right ovary.

On 25 November 1965, under general anaesthesia, the presence of the cystic ovary was confirmed and the diagnostic curettage showed the absence of normal endometrium. Laparotomy was then performed and the appendix was seen to be bound down by dense adhesions to the fundus of the uterus just posterior to the right cornu. As the uterus was lying in a deep pelvis, the appendix was fully stretched out and tense. In order to mobilize the uterus, the appendix was clamped and divided 1 cm. from its very adherent tip. The uterus, fallopian tubes and left ovary were normal, but there was a haemorrhagic luteal cyst in the right ovary, which was resected. The tip of the appendix was then removed together with a small portion of the adherent surrounding tissues.

The rest of the appendix was then fully exposed and only then was it seen to be the shorter limb of a bifurcated or inverted Y-shaped appendix (Fig. 1). Both limbs branched off from a short common trunk, which arose from the caecum at the normal appendicular site. The longer limb, which was the appendix proper, was lying well back in the pelvic cavity and was obscured by bowel and fat; its appearance was that of a normal appendix with no signs of previous inflammation. The shorter limb or supernumerary appendix arose antero-laterally from the left side of the common trunk and had a small mesentery of its own; it was supplied by a branch of the appendicular artery. Appendicectomy was then performed. No Meckel's diverticulum or any other congenital abnormality was found in the abdomen.

**Description of Specimen**

The common trunk was 2.0 cm. in length and 9 mm. in diameter. The longer limb or appendix proper measured 7.0 cm. in length from the point of bifurcation and its diameter varied from 7 to 9 mm. The shorter limb measured 2.5 cm. in length from the point of bifurcation, just beyond which its diameter was 5 mm., but at the expanded tip it was 8 mm. The common trunk had only one lumen, which was in direct continuity with that of the longer limb. The shorter limb was constricted at its origin, but then expanded to the average diameter for the next 0.75 cm., followed by a narrow segment 0.5 cm. long, finally leading to the bulbous tip. A cross-section of the shorter limb taken at 1.5 cm. from the tip shows typical appendix histology (Fig. 2).

**DISCUSSION**

Kelly and Hurdon observed a temporary outgrowth from the apex of the caecum in a 6-week-old embryo. This was confirmed by Gladstone and Wakeley, who suggested that this was a completely independent structure, which normally disappears before the permanent appendix is differentiated. If it does not disappear, it may well be the explanation of 2 appendices arising from a single caecum. Partial fusion of this temporary outgrowth with the appendix proper may also account for partial duplication. The simplest example of this type is the 'double-barrelled' appendix, in which the single organ presents 2 distinct lumina throughout its entire length, as in Rosenberger's case, or through only a part thereof, as in Walthard's case.

Elwyn described a 2-limbed appendix that fused distally. Somewhat similar is Watt's specimen, which also arose from a bifid stem, the larger of the 2 channels arising from the normal site and the smaller from the posterolateral aspect of the caecum. Clavel and Colson's appendix with a bifid tip illustrates another variety of partial duplication, an inverted Y-shaped bifurcation of the appendix.

Our own specimen, which is a well-developed example of the last variation, is of interest on account of the adherence of the tip of the supernumerary appendix to the fundus of the uterus. It undoubtedly had been the site of a severe localized infection, which had not spread to the appendix proper. It is suggested that during the one and only pregnancy that had ended in a septic abortion 4 years earlier, the enlarged gravid uterus had come into close contact with the tip of the shorter limb, which had then become involved in the septic process.

From the surgical aspect an appendix exhibiting partial duplication is unlikely to present a problem, but when 2 separate appendices arise from 1 caecum, one of them may well be overlooked and may subsequently give rise to unwelcome litigation. In the case of Tudor v. Mein, appendicectomy had been performed twice in 5 months on a child, on each occasion by a competent surgeon and at each operation the appendix had been witnessed by trained observers. The first appendix was 3½ in. (8.75 cm.) in length and the second appendix 4½ in. (11.25 cm.). A pathologist testified that the tip of the second appendix was its original tip, and not a stump after partial removal. Although the summarized report of the action did not specifically mention the possible diagnosis of a double appendix, which, in view of its rarity, is not surprising, yet from the evidence submitted such a diagnosis would be difficult to refute. This too was the opinion of Prof. O. Margarucci of Rome, who, as reported by Green, had also operated on a gangrenous appendix and had removed at the same time a totally separate healthy appendix, complete in itself, and arising from the caecum.

The presence of a supernumerary appendix could be obscured by an appendix abscess, and a small grid-iron incision might also in certain circumstances limit one's inspection of the caecum.

**SUMMARY**

A case of partial duplication of the appendix, discovered during a gynaecological operation, is described. An unusual complication was the adhesion of the supernumerary appendix to the uterus. The presence of a completely separate, second appendix may be overlooked, unless the caecum is carefully examined.

**REFERENCES**

PROPHYLACTIC IMMUNIZATION AGAINST RABIES WITH DUCK EMBRYO VACCINE


Since early 1962, the Johannesburg Abattoir and Livestock Market Department has experienced periodic rabies 'scares' when rabid animals, all bovines, have arrived for slaughter from different parts of the Republic and South West Africa.

All normal public health precautions were taken in each case, and in view of the number of persons coming into contact with such animals, it is fortunate that no human cases arose among those most at risk, such as veterinarians, slaughtermen, offal handlers and by-product workers.

Because of the inherent dangers involved it was agreed that all those at special risk should be offered immunization with the avianized rabies vaccine, despite the fact that at that stage of its development there was little proof that it evoked a satisfactory antibody response in protective levels under field conditions.

At the time the only findings available were the preliminary results of a survey conducted on veterinary students at Onderstepoort, which showed that only 30% of those inoculated produced any antibody at all and only 18% had antibodies at protective levels.

Although the United States Public Health Service and other authorities had previously recommended the intradermal route, they were now inclined to favour larger doses given subcutaneously because of the inherent difficulties of proper injection of an intradermal dose of vaccine under field conditions.

However, because the procedures under review were to be carefully controlled under optimum conditions, the following schedule was decided upon:

Four injections of 0·2 ml. of avianized vaccine intradermally at weekly intervals followed by a booster injection of 0·2 ml. approximately 6 months later.

A blood sample, for measurement of antibody response, was taken before any injection was given, another approximately 1 month after the 4th injection and another approximately 1 month after the 5th or booster injection.

Preliminary findings elsewhere showed that persons receiving all their inoculations in the same arm produced a better neutralizing antibody response than those receiving their inoculations in alternate arms, presumably because the response of the local and regional lymph nodes to the antigen was greater when all were given on one side. For this reason all inoculations, except the first, were given intradermally on the left upper arm.

A total of 84 abattoir employees at-special-risk were included in the survey. One veterinarian was excluded because of a history of severe sensitivity to hens' eggs.

All 84 showed no rabies antibodies present before commencement of the inoculations. Of 81 who completed 4 injections and had blood samples taken, 51 were White and 30 Bantu and Table I shows the results:

<table>
<thead>
<tr>
<th>Total</th>
<th>Complete</th>
<th>Positive</th>
<th>Negative</th>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>156.9%</td>
<td>26 (50.9%)</td>
<td>21 (41.2%)</td>
<td>4 (7.8%)</td>
</tr>
<tr>
<td>Bantu</td>
<td>13.1%</td>
<td>9 (30.0%)</td>
<td>17 (56.7%)</td>
<td>4 (13.3%)</td>
</tr>
</tbody>
</table>

* Incomplete or inconclusive = weak antibody.

Of the 67 who completed 5 injections and had blood samples taken, 44 were White and 23 Bantu and Table II reflects the results:

<table>
<thead>
<tr>
<th>Total</th>
<th>Complete</th>
<th>Positive</th>
<th>Negative</th>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>123.9%</td>
<td>26 (59.1%)</td>
<td>10 (22.7%)</td>
<td>8 (18.2%)</td>
</tr>
<tr>
<td>Bantu</td>
<td>16.1%</td>
<td>23 (43.5%)</td>
<td>9 (39.1%)</td>
<td>4 (17.4%)</td>
</tr>
</tbody>
</table>

In summary, therefore, it would appear that the booster or 5th injection raised the White antibody response from 50.9% to 59.1% and the Bantu from 30.0% to 43.5%.

The reasons for the markedly poorer antibody response in the Bantu is not known but, if one disregards race, it will be seen that after 4 injections the overall conversion was 43.2%, which was raised by the 5th injection to 53.7%, which cannot be viewed with any satisfaction, especially by those employees-at-risk.

I wish to thank Dr. B. R. Richard, Assistant Medical Officer of Health, Johannesburg, and Dr. M. M. Greathead, of the Johannesburg Abattoir and Livestock Market Department, for invaluable assistance during the survey; and the State Department of Health for the supplies of vaccine.

REFERENCES

PASSING EVENTS: IN DIE VERBYGAAN

Sympoism on Thyrocalcitonin and the C Cells. A Symposium on Thyrocalcitonin and the C Cells will be held at the Postgraduate Medical School, London, on 17-20 July 1967. The programme will include chemical, physiological, pharmacological and therapeutic studies with thyrocalcitonin; and the origin, function, comparative anatomy and electron-microscopy of the C cells.

Further information may be obtained from the Organizing Secretary, Giraud Foster, Postgraduate Medical School, 150 Ducane Road, London, W12, England.

Afeegsing van Eed. 'n Spesiale feestlike geleeheid is op Dinsdagsmiddag 6 Desember 1966 by die Karl Bremer-hospitaal gehou vir die pleeglike afeegsing van die Eed, wat hul gedragskodes bepaal, deur passiegeswiste arbeidsterapeute, verpleegsters wat die graad B.A. in verpleegkunde behaal het en finale jaar mediese studente.
