

the lower limit for fertility is regarded as something above 20 million per ml., provided volume, motility, and morphology are satisfactory. Many conceptions have been known to occur when the sperm density has been less than 5 million per ml. There is no upper limit to the normal sperm count, but, provided the density exceeds 20 million per ml., mere increase in numbers does not appear to result in enhanced fertility.

(3) Water is a perfectly satisfactory diluent for counting sperms, though, of course, if counts of moving sperms are required, a physiological diluent such as normal saline or Baker's<sup>1</sup> medium must be used, since water immediately kills sperms. Some (e.g., Farris<sup>2</sup>) consider that the total number of moving sperms in the ejaculate provides the best assessment of male fertility. It is not necessary to use a stain for sperm counting, though for observations on sperm morphology stained smears are required.

## REFERENCES

- <sup>1</sup> Baker, J. R., *Quart. J. exp. Physiol.*, 1931, 21, 139.  
<sup>2</sup> Farris, E. J., *Human Fertility and Problems of the Male*, 1950. White Plains, N.Y., Author's Press.

## Treatment of Hay-fever

**Q.**—*Antihistamines relieve hay-fever in one of my patients but asthma takes its place. Would desensitization be advisable? Should prednisolone instead of or combined with antihistamines be given in treatment?*

**A.**—It is presumed that by hay-fever is meant a summer hay-fever. The point is important, because rhinorrhoea and sneezing without any obvious allergic cause may precede asthma. Antihistamines help mild cases of seasonal hay-fever but do not help the associated pollen asthma.<sup>1</sup> Sometimes antihistamines even cause asthma.<sup>2</sup> It is very unlikely that a patient will grow out of a seasonal asthma due to pollen, and therefore an associated asthma is the only definite medical indication for injections in a patient with hay-fever. Injections are given pre-seasonally, and the higher the dose reached the better the result. It may be impossible to reach a reasonably high dosage before the pollen is in the air (in Great Britain) when the injections are not started before April. Steroids in low dosage may be given when all other methods of treating asthma have failed. Rhinitis is usually helped by steroids more effectively than asthma. Antihistamines and steroids can be used together.

## REFERENCES

- <sup>1</sup> Frankland, A. W., and Gorriall, R. H., *Brit. med. J.*, 1953, 1, 761.  
<sup>2</sup> Macaulay, D. B., *ibid.*, 1954, 2, 632.

## B.C.G. Concurrently with Other Immunizations

**Q.**—*Is there any contraindication to carrying out B.C.G. vaccination immediately after or before other immunizations?*

**A.**—Persons should not be vaccinated with B.C.G. when they are being immunized against other infections. There should be an interval of three weeks between vaccination with B.C.G. and previous or later vaccination against small-pox, yellow fever, or poliomyelitis. B.C.G. may follow killed vaccines (other than polio vaccine) a week after they have been given, and it may be followed by such vaccines after four weeks. In an emergency, a single other killed vaccine may be given concurrently with, or soon after, B.C.G., provided that the other arm is used. A B.C.G.-vaccinated arm should, if possible, not be used for further vaccinations for three months, because of the possibility of regional lymphadenitis. These recommendations are in accordance with the prevailing British Army instructions.

## NOTES AND COMMENTS

**Genetic Risks of Radiology.**—Dr. J. F. LOUTIT (Radiobiological Research Unit, Harwell) writes: It is not often that I glance at "Any Questions?" but for some reason or other I did in the *Journal* of February 25, and I observed (p. 606), under the heading "Genetic Risks of Radiology," a question: "Is there any chance of a foetal anomaly occurring in a child fathered by a man who has had an intravenous pyelogram performed?" The printed answer to the question is short, sweet, and hopelessly

wrong. Firstly, I presume the title is yours. Not all foetal anomalies are, however, genetically determined, but the title is fair enough in that the male parental influence can only be manifested by a genetic mechanism. Nevertheless, the answer should indicate that any woman has a chance of bearing a foetus with an anomaly of non-genetic origin. Thus the chance cannot be nil, whatever the state of the father. Secondly, it depends what the questioner means by foetal anomaly. Everybody (except identical twins) is unique, so who is "normal"? The extreme answer would be nobody except me; but there are generally accepted anomalies which everybody recognizes as such, and these are determined by the genetic constitution. The incidence of these is discussed in the *Report of the United Nations Scientific Committee on the Effects of Atomic Radiation*,<sup>1</sup> and there, from data provided by Dr. A. C. Stevenson (then of Belfast, now of the M.R.C. Population Genetics Research Unit at Oxford), it is shown that about 4% of infants are born with a genetically determined "anomaly." Now whether all these are spontaneous and natural or whether some of them are the direct or indirect result of diagnostic radiology over the past 50 years is, of course, completely unknown. There is no control series I know of from pre-radiological years. To provide the answer to the questioner would take many, many paragraphs and not three lines, but I think the short answer is that, according to the geneticist's calculations, the chances of genetically determined foetal abnormalities occurring in a child fathered by a man who has had an intravenous pyelogram performed are likely to be so small that they could not be measured against the high natural incidence of genetically determined foetal anomalies.

## REFERENCE

- <sup>1</sup> *Report of the United Nations Scientific Committee on the Effects of Atomic Radiation*, 1958. New York.

OUR EXPERT replies: Strictly speaking, Dr. Loutit is correct, although so much is still unknown about human genes that I think the words "likely to be" in his final sentence could well be left out. However, as he says, to provide the answer to the questioner would take many, many paragraphs and not three lines. For this reason, I think my dogmatic answer is the better one.

**Injection of Hydatid Cysts.**—Dr. G. N. MARANGOS (Nicosia, Cyprus) writes: Referring to the question about the injection of hydatid cysts ("Any Questions?" January 28, p. 307) we also used 10% formal saline for the injection of hydatid cysts and obtained very satisfactory results. However, I disagree with the statement in the last paragraph that the single operation is more dangerous. On account of our experience of many hundreds of cases we have used the one-stage operation for many years with a satisfactory result. Under the cover of antibiotics the cyst is injected with formalin, the content is evacuated, the redundant adventitia is removed, and the cavity is obliterated and closed per primum.

OUR EXPERT replies: It would be interesting and helpful if Dr. Marangos would give further details of his experience with the one-stage operation, as this might well influence current practice in this field. At the present time most would agree that if it is practicable to marsupialize it affords a considerable degree of protection to the patient against contamination of tissue with immature cysts which may ultimately develop into mature cysts.

**Correction.**—The fourth and fifth lines of the summary of the paper on infertility associated with hirsuties and oligomenorrhoea by Ferriman *et al.* (April 8, p. 1006) should have read "A comparison between the duration of therapy prior to conception . . ." not "contraception."

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