

both as to climatic and food factors, I thought it might be of interest to relate my findings and the reasons for reaching them.

In Brisbane, Australia, between the years 1926 and 1934, some six thousand children ranging up to 12 years in age had both antra aspirated into a 10-c.cm. syringe just before adenectomy or tonsillectomy, or both. When pus was found to be present in one or both antra the children were reviewed six weeks after the operation. I have one set of figures comprising five consecutive years' work showing that at this review 62 per cent. of children so inspected were considered on clinical grounds to have healthy sinuses. Of these some 7 per cent. subsequently showed signs of sinus involvement, so that in any case close on 60 per cent. appeared to have completely recovered. These children live in a subtropical zone, where there is abundance of sunshine throughout the year, where overcrowding is a negligible factor, and under social conditions in which, though there is a high cane-sugar intake, there is also a high consumption index for fresh meat, eggs, butter, green vegetables, fruit, and warm milk. One peculiarity of the Brisbane population (from which these children were drawn) is the abnormally high apparent incidence of sinus infection as compared with figures published for populations living in Europe and North America. As far as I am aware, no survey has ever been made on the matter in any part of Australia.

Last year, at the New York Academy of Medicine post-graduate course in diseases of the respiratory tract Dr. Porter, the instructor in otology at the Harvard Medical School, expressed himself in regard to sinusitis in children in terms which fairly accurately represent my own conclusions. He said:

"The nasal mucosa in children, although the seat of chronic infection, shows much greater recuperative powers when proper drainage is established than is the case with adults. In obtaining a cure frequently all that is necessary is to remove the infected tonsils and adenoids and then follow this with occasional treatments of shrinkage and treatment of the nasal mucosa. For some time thereafter it is necessary to have the patient report for treatment during an acute nasal infection. Occasionally it is necessary to resort to radical measures in children to the extent of exenteration of the ethmoid and some form of radical antrum operation. These proceedings are well tolerated and often produce truly surprising results. Sometimes it is advisable to do a partial submucous resection of the septum even in children."

Latterly I have come to suspect that tonsillectomy and adenectomy will give place to more scientific dietetic adjustments in the relief and prevention of these conditions: at present it seems that the same measures applied in different communities in the world produce widely divergent results (Dr. Porter's word "occasionally" gives a decidedly optimistic note), and that to me suggests the likelihood that the biochemist will eventually prove of greater value than the surgeon in cases of sinusitis in children.—I am, etc.,

Luton, Feb. 2.

J. A. R. MURPHY, F.R.A.C.S.

School Medicine

SIR,—With reference to school medicine, I should be grateful to any British colleagues who would kindly let me have their opinion and experience on the subject of the practical organization of school medical inspection, especially as regards (1) its importance in preventive medicine and (2) the organization of physical education. As I have to present a report on this subject to the Société Médicale Belge de Physiothérapie any information would be welcomed.—I am, etc.,

Natoye, Belgium, Jan. 30.

VICT. DE RUETTE, M.D.

Cancer of the Breast

SIR,—Mr. Sampson Handley complains that in my letter (*Journal*, January 30, p. 242) I have made indefensible claims for the hospital which he is good enough to say that I "adorn." My remark was that "radium technique began to be developed at St. Bartholomew's Hospital about twelve years ago." This is merely a statement of fact, and I should not have thought it was capable of the construction that Mr. Handley chooses to put upon it. Radium treatment had not been used at my hospital before that time, and nothing more is stated or implied in the words used. In the rest of the sentence as printed I am made to say "its value and limitations in cancer of the breast began to be fairly clear." What I wrote was "begin to be fairly clear," and possibly some slight ambiguity may have been introduced by this mistake in the typescript. I am well aware that Mr. Handley had used radium before this, though in an entirely different way, and I hope he will be content with this explanation, as I regard all discussions on priority as being valueless.

Having started with a misunderstanding, Mr. Handley then attributes to me a view I have never maintained—namely, that "radium alone" is to be the chosen form of treatment. My only object has been to ascertain exactly what might be the value and limitations of radium.—I am, etc.,

London, W.1, Feb. 8.

GEOFFREY KEYNES.

SIR,—Knowledge and practical experience of the three methods of treatment of breast cancer (operation, x rays, and radium) can hardly be possessed in equal measure by any one medical man; so a symposium, as the discussion in your columns following the valuable paper by Mr. Cecil Rowntree seems to be developing into, is the only way in which a wide and undistorted view can be obtained of the best methods in current practice.

My own experience, based on about two hundred new breast cases seen yearly, leads me to offer the following suggestions.

1. For all operable, borderline, or inoperable (surgically or medically) cases a first trial of the response to a well-planned and executed course of x rays to the primary and the whole of the lymph-drainage areas.

2. In six weeks to three months after the end of the x-ray course all signs of the disease may have disappeared, or only a small residue be left of the primary; if so, wait a further period, with monthly or less frequent examinations.* If the response is inadequate to a full x-ray course more x rays (perhaps by another method—for example, lower intensity and longer time), interstitial radium, or local or radical mastectomy should be considered (possibly followed with further x-ray treatment at longer intervals, as after primary operation cases).

3. For cases of local recurrence after operation deep x rays should similarly be tried in the first instance (a number of statistical reports show five-year freedom from signs in inoperable cases of from 20 to 36 per cent.), or low-voltage "contact" x-ray therapy for small isolated and superficial nodules. If the response is incomplete interstitial radium may then be tried; or operative removal be attempted and followed by x rays or surface radium.

4. For all metastatic cases—in the bones, chest, abdomen, or elsewhere—as deep x rays occasionally prove successful they should be tried and persevered with: the metastases may be more radiosensitive than the primary was, and even the signs of metastatic hemiplegia have been relieved (as in a case I once saw treated). Treatment may be either local (or local to the worst sites) or generalized (as by teleroentgen-therapy methods). Much alleviation of symptoms is possible in a large proportion of metastatic cases, and medicinal means may be found a useful adjuvant (as Maisin's "barcan").

* For review of results see Hutchison, E. G. (1936), *Surg. Gynec. Obstet.*, 62, 653.