

squamous, spheroidal, cylindrical—and their tendency to arrange themselves in definite ways so as to form with the stroma glandular tissue of a complex type. No hint is given as to how, or where, the parasite is formed nor how it comes by its wondrous powers; and I therefore venture, in fear and trembling it must be confessed and with all the respect due from an old and honouring pupil, to fill up, in the only way in which it seems possible, the hiatus which the eminent lecturer has left in his argument, with the result, as I believe, of weakening if not destroying that argument.

If the alleged parasite is derived from the host it must, on the principle of "every cell from a cell," be from a pre-existing cell of the host, and although the lecturer makes a point of insisting that there is no direct evidence that "the cells of the youngest carcinoma are derived from the cells of the part in which it first appeared," the likeness of the cancer cells—squamous, spheroidal, cylindrical—to the epithelial cells belonging to the primary site surely compels the inference that, if the presumed parasite is formed within the body of the host, it is from some one (or more) of these cells. No alternative supposition presents itself. Accepting, then, the view of autogenetic parasitism, as enunciated by the lecturer, one seems driven to the conclusion that an epithelial cell either itself reverts, or in some way or other gives origin, to a cell of the protozoon type. Such a hypothesis is perfectly intelligible and well worthy of consideration. Let us see if it fits the facts of the case. An epithelial cell has many of the characters of a protozoon, and it is conceivable that under the lowered conditions of vitality resulting from senility (local or general) and irritation a cell might be hatched which, like the criminal in our midst—himself a reversion to a more primitive type—should refuse subservience to the body politic, and defying the laws binding upon every citizen of a complex community, pursue an independent course, with disaster alike to the wrongdoer and to the community at large. It will be observed that on this view the most tragic and difficult event in the whole terrible drama is the genesis of the initial parasite cell. In its absence all is well, but when once formed it tends to multiply with fatal persistence, even in the tissues of young subjects wholly incapable of generating it, as shown by the fact that while, e.g., among mice only the old ones are capable of developing carcinoma spontaneously, young ones can be readily inoculated with the disease. The fact that "carcinoma grows by a multiplication of its own proper cells and not by a transformation of neighbouring cells into cancer cells" lends further support to the view that the entire growth is derived from a single cell, or at least a limited number only.

So far, so good. But if we are to assume that the carcinoma cell has cast aside all those specific properties which belong to it as a member of a complex multicellular organism and has been degraded to the rank of a common protozoon, how are we to account for its specialised morphology and morphological tendencies; how explain the fact that it is often indistinguishable in appearance from an epithelial cell—squamous, cylindrical, or other; how account for its ability to form such a complex glandular tissue as is presented by the cylindrical-celled cancer? Is not this asking too much of the protozoon? To this it may be replied that, without going the length of regarding the carcinoma cell as belonging to so degraded a type as a protozoon, it is still possible to regard it as a partial reversion to such a type, and as having in this way acquired quasi-parasitic properties, though still retaining many of the properties which belong to it as forming part of a multicellular organism. Such a view would, however, carry us little further than the conception of the cell of carcinoma "as a normal epithelial cell which has escaped from the bondage of the laws which confine such cells and has, so to speak, run wild."

Mr. Butlin argues his remarkable thesis with his wonted dialectical and literary skill and finishes by boldly proclaiming it as a truth, as, indeed, he sets out by doing in the very title of his lecture. Carcinoma, he tells us, is a parasitic disease. Unfortunately, it is just on those points in regard to which we most desire him to inform us that he is most tantalisingly silent. We want to know from what species of cell he derives the carcinoma cell, how and why it becomes a parasite of the protozoon type, and how such a parasite comes to display characters and tendencies belonging to highly specialised epithelial cells.

I am, Sirs, yours faithfully,

Wimpole-street, W., Dec. 17th, 1905.

HARRY CAMPBELL.

VARICOCELE—WHAT OF IT?

To the Editors of THE LANCET.

SIRS,—Whilst examining recruits for the Sixth New Zealand Contingent I drew attention to the frequency of this condition. Except for special supernumeraries such as buglers, veterinary and ambulance orderlies, the standards were a minimum of 5 feet 7 inches for height and a chest measurement of not less than 36 inches on full expansion. So numerous were the applicants for service in South Africa that full advantage was taken of the medical test followed by an even more rigorous riding test to whittle down the number of recruits so as not to exceed the number allotted to each province. It was found, however, that if one insisted on rejecting a man solely on account of varicocele one must exclude some men of fine physique, not a few of whom had a record either for athletics, good horsemanship, bushcraft, previous service, or good marksmanship.

During a year's service with Plumer's Force, made up for the most part of Australian bushmen and Maorilanders, I can only recall one man complaining of the ill-effects of varicocele. This man, a Fifth Q.I.B., suffered from a large left varicocele. Occasionally it caused him much trouble and sometimes actual pain on mounting his horse. Although all sorts of excuses for "going sick" were resorted to by "the weary Willies and tired Tims," who were soon "fed up" with constant trekking by day and outpost duty by night—even to the eating of cordite¹—I never remember "a painter" (a New Zealander's way of speaking of a comrade who preferred a rest camp or remount depot to the front) alleging that a varicocele was sufficient to warrant him being sent down to the base. The possession of a varicocele has been known to disqualify a man for Government employment but not to prevent him being a New Zealand representative footballer. In examining candidates for insurance in the New Zealand Government State Insurance Office notice is always taken of varicocele. I cannot, however, recall the case of any man having been refused as a "first-class life" merely on account of varicocele nor do I remember any man being "loaded" solely on that ground. The impression formed in New Zealand and South Africa as to the relatively greater frequency of varicocele in the Australian colonies was strengthened to some extent by my experience at the London Lock Hospital whilst collecting statistics for Dr. Arthur Keith and Mr. Arthur Shillitoe on the incidence of hypospadias in a series of 500 out-patients.² It is worth noting as bearing on the present discussion that varicocele is stated to be very rare in the Highlands. The wearing of kilts and loose clothing is said to have the effect of keeping the testicles well braced. The South African natives who have retained their primitive costume—or, rather, lack of costume—do not suffer from this condition, as far as I remember. The wearing of tight riding breeches, waist belts, the dressing of the testicles to the left side, and the frequency of habitual constipation may have some effect in causing varicocele in young colonials from "away back."

It is a fact, however, that the admission of some recruits with varicocele, sufficient to have rejected them from a regular regiment, did not interfere with the physical fitness of the colonial irregular corps. The possession of a few artificial and filled teeth also did not prevent some of our men seeing over two years' service at the front. On the few occasions on which we had regimental sports our men carried all before them, especially at football. Consequently, as far as minor defects, such as varicocele, were concerned, it would have been a pity to have thrown out some good horsemen and shots—men who had spent years in the bush and who after six months or so were almost as good at mounted infantry work as some of the Boer commandoes who remained in the field until the end of the war.

I am, Sirs, yours faithfully,

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Quarantine Service, Port Said.

* * Dr. Purdy's interesting letter was not received until after we had summed up the correspondence upon this subject in a leading article. His views are those of the majority of the medical profession and agree with our own.
—ED. L.

¹ Gleanings from South Africa, New Zealand Medical Journal, 1902.

² THE LANCET, Jan. 16th, 1904, p. 146: "The Preputial or Odoriferous Glands of Man."