

again. After operations for cancer he causes the patient to wash the scar with this lotion, and finds that this makes relapses very much rarer, though of course, in case of very extensive malignant disease, if cancerous tissue be left behind it will grow towards the surface, and here such a lotion is of no use. Some cases are then given bearing out these views. In one instance, in particular the patient had been operated on 15 years before for cancer of the face; for years he used the alkaline lotion, and remained free of disease; then he stopped using the lotion, when the disease in its original form began to appear; on resuming the application this gradually passed off, and the part remained well. Dr. Busch then asserts that this mode of treatment cures epithelioma of the lip, so long as this is simply in the stage of crusting, of epithelial hypertrophy; but it has no effect after ulceration has occurred in this situation. On other parts of the face it will sometimes effect a cure even after ulceration has taken place, and the author gives two cases illustrative of this event. Prof. Busch then refers to Paget's well-known paper in the tenth vol of *St. Bartholomew's Hospital Reports*, and in this connection the interest of the paper lies chiefly in the relation of four cases of breast tumor, in which the nipple was effected. cured by means of his alkaline treatment. In case 1 there was a painful mammary tumor, but no enlargement of the axillary glands. On the nipple was a thick layer of warty-looking epidermis, and on the nipple of the sound side a little of the same was noticed. On softening and raising the crust there issued from the nipple a thick, yellowish-white plug, like a comedo, or such as may often be expressed from epithelial cancer. this plug consisting of epithelial cells which had undergone fatty degeneration. The washing was continued, the tumor disappeared, and in two months the patient was well. In two other similar cases the same treatment gave equally favorable results. In the fourth case the tumor was an inch and a half in diameter and of extreme hardness; here also the epidermis of the nipple was much thickened. The soda treatment caused the complete disappearance of the tumor, the first application being followed by what the patient described as "a discharge of thickened milk." Another smaller tumor formed at another part of the breast, and this was still under treatment. The author concludes by stating that he had seen many cases of mammary cancer in which the nipple was unchanged, except that it showed the usual retraction. In many other instances, however, the nipple was found more or less crusted with thick epidermis. In these more recent cases he had not had the same success in arresting the growth of the tumor by the alkaline treatment, even in cases in which epithelial plugs were expressed.

The author, writing in 1877, mentions incidentally that some years previously, and apparently before Paget, the first of these four cases suggested to him the idea that the growth of the breast

tumor may have resulted from closure of the milk ducts by cellular masses, though in 1864 he had described the process as following the reverse course, supposing that the carcinoma, starting from the point primarily affected, spread along the epithelium of the ducts to other parts of the gland.

I have quoted Busch's paper at some length on account of the important bearing it has on the discussion of the probable origin of mammary cancer after disease of the nipple. The method of treatment described is also well worth bearing in mind in dealing with cases such as he refers to; and as this epidermic crusting of the nipples is common enough in the old, and even among the middle-aged, the possibility of its leading to cancer should never be forgotten. Volkmann recommends the alkaline treatment in hyperplastic conditions, the result of simple chemical irritation, especially such as are chronic and associated with general thickening of the epidermis. Dr. S. W. Gross also, besides referring to two cases of "Paget's disease" he had seen, mentions one in which Busch's treatment was successful. Further, Dr. T. Chambers records two cases in which eczema of the nipple had lasted 9 and 18 months respectively, the nipple being retracted, flattened, fissured, and the breast enlarged, nodular, and painful; "the neighboring lymphatic glands were similarly affected." In these cases attention to uterine disease, which was present in both, and the local application of tincture of opium and glycerine, promptly effected a cure, the breasts assuming quite their normal appearance. And Dr. R. Munro has reported a case of true eczema of the nipple and areola, which became perfectly well under ordinary treatment.

Such cases, then, as show open foul ulceration, are unquestionably already cancerous, and the surgeon's duty in regard to them is plain. There seems also to be no necessity for applying the name "Paget's disease" to such cases. Of the other cases which have been recorded, many of them were obviously, for a period of years at least, simple eczema, and nothing else; and to these also, especially in their early stages, the name "Paget's disease" appears to be equally inapplicable. There remain other cases, however, separate from these, and to such the new term proposed is appropriate; cases simulating eczema, but associated with or closely followed by true malignant disease of the breast. If tumor of the breast be present, the diagnosis is plain, and the surgeon's course equally so. But how is the really malignant character of such cases to be recognized while there is yet no tumor? Duration simply is no very reliable guide. And in regard to appearance, the only diagnostic sign which has so far been suggested is the presence of a well-defined, overlapping margin, "forming a veritable ridge with a sulcus behind it." This, when it is present, is doubtless a valuable indication, and if it were associated with a red, raw surface, which was obstinately rebellious to ordinary treatment, then the interference that Thin's "malignant papillary