was probably a case of cancer of the lung, and that Sir Joseph Lister had amputated high for malignant disease of the forearm. In due time came the currant-jelly expectoration, and she died of cancer of the lung. In these cases the faintest hints were given at the outset, and errors by default of diagnosis could only be avoided by paying heed to them. We ought to make ourselves well acquainted with this red-and-black-currant-jelly like expectoration of cancer of the lung so as to be able to distinguish it from the bistre or sooty tint of pulmonary apoplexy and old hæmoptysis.

Pursuing this subject, two other instructive casas occur to me. About fifteon years' ago the late Mr Manford had a case which puzzled several of us. The chief symptom in this case, for at least six months, was an intolerable pain on the front of the thigh three inches above the knee-joint. All sorts of opinions were expressed, and of course hysterical knee was the favorite. At last it occurred to me that, this region being supplied by terminal twigs of the obturator nerve. we ought to examine that nerve along its whole course, and this could only be done per rectum. On passing the finger the secret was at once discovered to be a carcinomatous mass springing from the side of the pelvis, and growing into that part of the pelvic cavity which is traversed by the obturator nerve.—Wm. Murray, M. D., in *Lancet.*

AMPUTATION OF THE BREAST FOR MALIGNANT DISEASE.

The subject of this paper is one on which there has been wide difference of opinion, though the very large majority of surgeons is on the side of radical operation, some of the very ablest believe in only the palliative steps and partial removal. In discussion of this most important operation, important because of its ever-recurring need and the vital necessity for its proper execution, statistics are of little value. True though it is that figures will not lie, yet through the incompleteness and inaccuracy of compilers, statistics may be made to support or destroy nearly any theory. It is the intention to present in this paper only the logical side of the question. Certain facts are well established.

The average duration of life in carcincoma is less than three years from the time of discovery of the tumor, and ten per cent. of all deaths from carcinoma are breast cases alone. The affection is invariably fatal, after a most painful and loathsome course, and occasions by its very presence the most melancholy mental distress. The percentage of recurrences after the old operation, usually incomplete, is 75 per cent. In sarcoma the progress is more rapid and the diagnosis in the early stages difficult. It occurs more frequently early in life and if hesitation permits its continued growth, it soon becomes inoperable. When attacked early, its renewal is simple compared with the radical operation for carcinoma and the prognosis probably is more favorable.

Repeated operations are to be undertaken without hesitation whenever the sarcomatous evidences re-appear. The comparative inseverity of the operation makes this doubly appropriate. If unarrested, it is early fatal.

That both carcinoma and sarcoma develop as local affections, is an undisputed question. How far predisposition or inheritance may tend to the development, is not determinable.

Were it certain, however, that such influences were constant and effective, the propriety of the removal of any attempt at location, as early and as thoroughly as possible, would still be an imperative duty.

The influence of heredity is perhaps wholly in the limits of tendency or predisposition and is more positively shown in many malformations and incompleteness of development than in any direct constitutional manifestation, save perhaps syphilis alone.

Surely no surgeon would hesitate to operate on a hare-lip, or a club-foot, or a cross eye, because it was a family characteristic, as is so very commonly the case. Fully as practical it seems, would be an objection to remove the local determination of carcinomatous predisposition when accessible and eligible.

Granting every claim made by those who favor incomplete operation, or who absolutely decline to operate, there are but three objections to the demand for fullest relief, *i. e*, the uncertainty of diagnosis, the increased mortality when the axilla is invaded and the probability of early recurrence. With respect to the first objection, it is but fair to say that hesitation is to be observed in the young when the functional activity of the mammary gland is a matter of great importance and when the probabilities of carcinoma are few, when chronic inflammations and abscess, adenoma and various benign cystomas are the rule. While carcinoma can usually be excluded under these conditions, sarcoma is often simulated. At the very worst an exploratory incision can add nothing to the gravity of the non-malignant conditions but will readily establish a diagnosis while there is yet full time for help. After the 40th year all removable tumors of the breast should be excised, the earlier the better, without regard to diagnosis.

The overwhelming balance for good in such a plan leaves the few removals of benign tumors out of deserving thought.

With respect to the second objection it may be said that there is no argument against interference