

## Surgery

---

WALTER McKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

---

**Injury as a Causative Factor in Cancer.**      WILLIAM B. COLEY.  
*Annals of Surgery.*

In the April number of the *Annals of Surgery* appears a lengthy and most exhaustive paper on this subject.

After pointing out that trauma has been recognized as a causative factor since remote times, and criticizing Phelps' paper in the May issue of last year (wherein the idea was questioned by Phelps, or, in fact, denied), he goes on to give the results of his own extensive experience bearing on this point, and gives the histories in brief of no less than 970 cases, extending over more than twenty years, and the histories of which were taken by himself.

Up to November, 1897, he had had under his care 170 cases of sarcoma, and at that time he wrote in an article for the *Annals of Surgery*: "No clinical feature of the disease had impressed me more strongly than the frequent association of trauma with its early manifestations." Of the 170 cases reported then 46 gave a history of antecedent trauma, and in 9 of the 46 the tumor developed within one week following the injury at the exact site of injury.

Since writing that paper (1897) he has observed 800 additional cases of sarcoma, of which 179 gave a definite history of antecedent trauma.

Of the whole series of 970 cases, antecedent trauma occurred in 225—*i.e.*, in 23 per cent. The tumor developed within the first month after the injury in 117 of the 225 cases (52 per cent.) of typical acute traumatic malignancy, "the reality of which Phelps and others deny."

In using the word cancer he refers to all varieties of neoplasms, not simply to carcinoma. He tabulates his cases in three groups:

- (a) Synopsis of cases published up to 1898.
- (b) Cases of sarcoma with antecedent trauma, personally observed since 1898.
- (c) Cases of carcinoma of the breast associated with antecedent trauma.