be operated on before the abdominal tumor. I removed a flattened endothelioma, non-malignant, 4 cm. in length, situated extra-durally on the right side of the cord, extending from the third to the seventh dorsal vetebrae. The abdominal tumor still awaits exposure and identification next week.

Here is a situation where abdominal surgery might easily have been justified, but the fine clinical judgment of the internist demanded that the signs of cord pressure be removed, first, as the abdominal mass could await its appropriate term.

It seems to me that we may all feel proud of such diagnostic acumen based upon an understanding of certain fundamenal neurological manifestations. I concur with Dr. Kiefer in his timely admonitions and appreciate the privilege of discussing this paper.

DR. EVERETT D. KIEFER (Closing the discussion): I have little more to add.

Dr. Fay should be the one to answer Dr. Shattuck's question, but to me laminectomy is a fairly serious operation and one would not explore for arachnoiditis without having some fairly definite neurological signs, or fairly definite evidence of changes in the spinal fluid, or in the case I just mentioned, where one had exhausted every other means of giving relief to the patient. This patient was rapidly becoming a morphine addict and he was explored perhaps on a little less evidence than one would usually want.

A B S T R A C T S

BLOOMFIELD, ARTHUR L.

Early Cancerous Changes in Peptic Ulcer. J. A. M. A., 104:1197, April 6, 1935.

The author considers the subject to benign ulcer and its relationship of malignancy of the stomach.

He reviews the criteria for the early diagnosis of carcinomatous gastric ulcer. The roentgen examination is not always conclusive. The assumption that benign ulcer has a long history and cancer a short history cannot always be relied upon. Consideration of age and sex are of little help. The size of the gastric ulcer is generally helpful in the differentiation, but there are many exceptions to this rule. The presence of gastric secretion or absence of it when carefully analyzed is not of much help since cancer may arise in a stomach with an acidity and a chronic gastritis on the one hand and on the other arising from a previous benign ulcer with little change in gastric secretion. Response to a medical regime of the ulcer cannot be used as conclusive evidence either for or against malignancy, because a malignant ulcer may respond to medical treatment and benign ulcers may not.

Prophylactic surgery carries with it definite risk.

The author therefore concludes that patients with benign ulcers should be treated as such until weighty evidence accumulates to change that impression, realizing that a number of malignancies will be thus overlooked in their incipiency. Francis D. Murphy, Milwaukee.

SAPOZNIK, H. J.; ARENS, R. A.; MEYER, JACOB, AND NECH-ELES, HEINRICH.

The Effect of Oil of Peppermint on the Emptying Time of the Stomach. J. A. M. A., 104:1792, May 18, 1935.

The Authors have previously reported that oil of peppermint diminished gastric acidity. In this study they report the effect of oil of peppermint on the emptying time of the stomach. In the empty stomach small doses of oil of peppermint had no effect on the hunger contractions of dog or man. Large quantities of oil of peppermint decreased the motility in six tests and produced no change in two.

In experiments with a meat meal and oil of peppermint, shortening of the emptying time was observed.

In six normal young females the addition of two c.c. of oil of peppermint to a barium-milk shortened the emptying time of the stomach as observed fluoroscopically.

These studies seem to explain the popular use of oil of peppermint in many stomach remedies. The use of peppermint candy and peppermint alcohol after a heavy meal appears useful because by increasing motility distension and fullness are relieved more promptly.

Francis D. Murphy, Milwaukee.