

lime deposits. Injection of 25 cc. of sodium tetra-iodo-ortho-sulpho benzoate, 10% solution, gave the following x-ray findings. Anterior-posterior view: the dye penetrated capsule and synovia over three-quarters of the joint cavity on fibular side; the inner quarter, however, was entirely free from the presence of the opaque drug. Lateral view: the drug invaded all but the popliteal surface and there was also some mid-portion of the capsule lighter than the rest of the joint cavity, thus pointing to the presence of adhesions. Injection of phenolsulphonphthalein showed absorptive integrity of the joint to be good. The patient had a mild reaction after the injection, which cleared up.

Case II. W. S——, aged 56 years, male, admitted to Neurological Hospital with diagnosis of lues, cerebrosplanis and Charcot's ankles, the right being more involved than the left. Wassermann positive. Lange's colloidal gold test positive. Ordinary x-ray examination confirmed diagnosis of Charcot's disease of the ankles. Twenty-five cc. of 10% solution of yellow dye were injected into right ankle joint. The fluid went in with some difficulty. X-ray examination soon after did not show marked change in contour but the line of demarcation of the debris was more distinct. The loose bodies did not seem to be displaced. The findings, therefore, indicated the presence of loose bodies in the ankle joint, seemingly firmly imbedded in the organized soft tissue exudate. A subsequent operation confirmed the x-ray findings made after injection of the drug.

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Mucosal Inclusions in Anterior Gastroenterostomies in Dogs Following Various Methods of Suturing.

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(Introduced by George E. Burget.)

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The object of this study was to ascertain how healing progressed in anterior gastroenterostomy wounds in dogs when the techniques of suturing employed were similar to those commonly used. The duodenum was sutured to the anterior stomach wall in 50 dogs. The animals were sacrificed by chloroform inhalation after 6, 9, 14, 20, and 27 days. The stomach and duodenum were removed at once

and fixed immediately in 10% formalin and were not again disturbed until fixation was complete.

Blocks were taken from the mid-portion of the anterior and posterior aspects of the gastroenterostomy ostium by razor section. Paraffine sections, stained with hematoxylin and eosin, showed in cross section the entire anastomotic zone with the adjacent stomach and intestine. Observations were made on the gross specimens as to amount of infolding at the site of anastomosis as well as size of the ostium. Suture materials were 00 plain catgut and 0 black silk. Five different suture methods were employed in performing the anastomoses for which no gastro-intestinal clamps were used.

We observed distinct variations in wound healing depending upon the suture method used. The outstanding observation of this study, however, was the occurrence of mucosal inclusions in the line of anastomosis as shown in Fig. 1 at *d*.

The mucosa in these inclusions is composed of tubular glands and interglandular stroma. The epithelial lining is columnar with

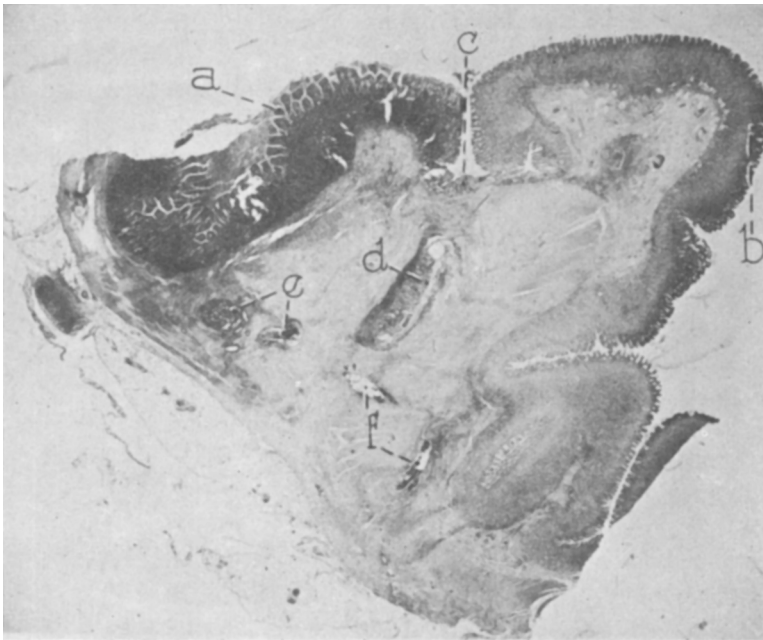


FIG. 1. (Dog 45.)

Low power magnification from anterior aspect of ostium after a 20-day healing period. Technic number 5 was employed. *a*—Intestinal mucosa; *b*—gastric mucosa; *c*—complete mucosal healing at line of anastomosis; *d*—mucosal inclusion in the line of apposition; *e*—mucosal inclusion in wall of intestine associated with a silk suture; *f*—silk suture defects.

coarsely granular basal nuclei. Many of the cells are distended with mucous droplets and mitoses are common. In brief, it has the appearance of viable intestinal mucosa. Serial sections, in so far as they have been studied, have shown no communication between the glandular inclusions and the gastro-intestinal lumen. These mucosal inclusions were observed only where suture methods were used that caused mucosal eversion at the site of anastomosis. They have not, to our knowledge, been described heretofore, and we are now studying their ultimate fate and possible influence on remote wound healing. The mucosal inclusions in the wall of the intestine at *e* are of different origin and have been described.

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On the Bactericidal Powers of Lipiodol and Iodipin in Vitro.

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(Introduced by H. J. Sears.)

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A generous literature concerning the use of lipiodol and iodipin in diagnosis reveals the statements by many authors that these iodized oils are antiseptic.

One of us (A. M.) has used these oils in the injection of over 300 gynecologic patients and has occasionally felt some concern regarding the possibility of infection from the material forced through the tubes into the abdominal cavity. No such infection has taken place and we have been led to believe that the oils used actually had antiseptic powers. Nevertheless we felt that some quantitative work to determine more accurately the effects of these oils on bacteria would be of value.

Great difficulties are encountered at once in applying the ordinary methods of disinfectant testing to these heavy oils. Even long continued shaking of specimens of the oils with masses of bacterial growth taken from agar slants gave very poorly dispersed suspensions of the organisms. Visible clumps were invariably present. *Staph. aureus* (a hemolytic strain) and *B. coli* were the organisms used. Inoculations from such imperfect suspensions to broth gave growth in all cases, but since many organisms in the clumps may have been protected from contact with the oil, we did not feel