The temperature rises and with it the pulse, but the respirations as a rule are not affected. In this rise of temperature I see nothing peculiar, for it follows the injection of serum which admittedly contains toxins, and in all probability any similar serum would produce a similar result if it were active. It cannot therefore be said with accuracy that the reaction is specific, and this is proved by the fact that Case I showed the most typical reaction, yet subsequent examination of her tissues failed to detect any malignant disease.

2. The local effect upon the tumour was shown in each case, for the breast in the first case and the malignant masses in the other two cases became inflamed and reddened as the result of the injection. Yet here, again, I could not satisfy myself that the serum acted by selection upon malignant tissues only. It seemed to me to intensify any pre-existing inflammation. This was effectually shown in Case I, where the lymphatic glands in the right axilla became enlarged in addition to those in the left armpit, the original seat of cancer being the left breast. For here, again, subsequent examination showed that none of the glands which had thus become enlarged after the injections of the culture were affected with cancer.

3. The treatment is certainly painful apart from the success of hypodermic injections.

Lastly, malignant disease progresses, even to a fatal issue, whilst the injections are being given, as is shown by Case II. I fear, therefore, that as my experience goes the method is of no service at present either from a prophylactic, diagnostic, or curative standpoint. But it may fairly be argued that the trial I have given is insufficient, and that further observations are desirable, for Case I was not suffering from cancer and Case III remained very much in statu quo ante.

ACUTE SEPTIC COLITIS DUE TO MILK POISONING.

By G. F. VINCENT, F.R.C.S. EDIN.,
Woking.

The following case appears worthy of record:

On October 30th I was called to see E. L., aged 32. He complained of aching pains in his neck and over his left shoulder. Some of the cervical glands were swollen and tender, his tongue furred, temperature 99°, pulse 100. He stated he had been ill the previous week with "influenza," and an attack of "jaundice." It was further elicited that during the last eighteen months he had had several slight attacks of jaundice. The left apex of the lung indicated tuberculous lesion probably old. No other physical signs were evident.

Progress.—On November 1st he was much better, and the pains in the neck and shoulder had almost disappeared. On November 3rd the patient was seized with severe pain in the left lumbar region radiating towards the groin. During abdominal examination he said the pain had shifted to the right hypochondrium, passing up to the right shoulder. Slight enlargement of the liver and spleen was detected at this time. Temperature 100.3°, pulse 110, urine normal. The pain was intense and paroxysmal, and called for repeated doses of morphine hypodermically ($\frac{1}{2}$ gr.).

November 4th. He was considerably easier: the pain, now much less, was confined to the hepatic and right iliac regions, and these parts were tender on pressure.

During the following ten days he remained in much the same condition, the severity of the pain varying from day to day, but on the whole decreasing, so that he was able to get up and about, and on November 13th went out of doors.

On the evening of November 15th he had a severe shivering fit, and it was also stated that he was "jaundiced," but by gaslight this could not be detected, nor was there any icterus the following morning.

November 16th. The pain had returned with greater intensity, and was diffused over the right hypochondriae, epigastric, and umbilical regions. His bowels were loose, but the stools were otherwise normal in appearance, and temperature 98.8°.

November 17th. There was practically no change in the symptoms. The temperature remained normal, the pulse increased in rapidity (120), and he became more feeble. The pain was relieved temporarily by morphine.

November 18th. The motions became more frequent and contained a little bright blood and small pieces of mucus. Slight tenesmus and occasional vomiting occurred. Temperature 98°, pulse 130.

November 19th. The abdomen was slightly distended, vomiting more frequent, and blood and mucus in considerable quantities passed in the stools. Temperature 97°, pulse 135.

Result.—November 20th. The patient was considerably worse, suffering intense pain which all treatment failed to relieve. The abdominal distension was increased and continued to increase rapidly during the day, pointing to the onset of peritonitis. Stools exactly resembled red

currant jelly and were very offensive. Vomiting was constant and the ejecta were liquid and of a grass-green colour; even teaspoonfuls of water could not be retained. He suffered severe paroxysmal pains radiating all over the abdomen, but most marked on the right side and epigastrium. The pulse became more feeble and more frequent. He rapidly sank, and died at 12.20 a.m. on November 21st, retaining consciousness to the end.

Necropsy.—On examination fifteen hours after death rigor mortis was well marked. On opening the abdomen, about half a pint of free blood-stained fluid escaped. The caecum, ascending colon, and proximal half of transverse colon were enormously distended and of purplish-red colour. The distal half of the transverse colon, splenic flexure, and upper part of the descending colon were only slightly congested and distended, but the lower part of the descending colon with sigmoid flexure was swollen and deeply congested. The rectum was normal. A few flakes of recent lymph were observed on the surface of the caecum. The large gut, on removal, was found to contain very offensive black fluid, though not in large quantity. The portions above noted were found greatly dilated, and the walls on section nearly $\frac{1}{2}$ in. in thickness. The caecum was the part most affected, and here small white patches were visible on the inner aspect, which proved to be collections of small air-bubbles beneath the mucous membrane. On compressing the intestinal wall between the finger and thumb distinct emphysematous crackling could be both felt and heard. The duodenum and the upper 2 ft. to 3 ft. of small intestine were congested and somewhat distended with dark fluid contents. The rest of the small intestine and the appendix vermiformis were perfectly normal. The liver was enlarged, the lower edge reaching about two fingerbreadths below the costal arch. The portal vein contained fluid blood. On section the surface of the liver appeared normal, but here and there were yellowish-white patches which proved to be medium-sized portal tributaries containing decolorized thrombus, and in one spot a recently thrombosed vessel was divided. The other abdominal organs were normal. Chest: Apex of the lung fixed to the chest wall by old pleural adhesions. The apex itself puckered and contracted by fibrous tissue. Lungs elsewhere normal. Heart normal.

Pathological Report (by Dr. Spitta of St. George's Hospital).—Macroscopically, the liver is smooth and slightly shrunken: microscopically, the appearances presented are those of an acute toxæmia, and in many respects simulated acute yellow atrophy. There is, however, a very widespread thrombosis of the intralobular blood vessels, and this, coupled with the minute pathological appearances of the intestine, points to the primary cause being thrombosis of the portal vein and its branches. The intestine, macroscopically, is oedematous, soft, and spongy, whilst the internal surface is covered with minute gas bubbles, probably the result of micro-organic decomposition. Microscopically there is very little inflammation and no ulceration. The mucous coat is either absent or markedly necrotic, whilst the main wall of the gut presents an obvious capillary thrombosis, which is most distinct and characteristic. The peritoneal coat is slightly inflamed. In my opinion these morbid changes are due to a thrombosis in the branches of the portal vein.

The pathological examination having established the septic nature of this case, it is quite clear it was also due to the contaminated milk supply, which the medical officer of health (Dr. Pierce) found to be the cause of the then prevailing epidemic of septic sore throats. The patient was supplied with milk from one of the two dairies condemned, and to within a few days of his death he drank of this milk freely. The case was most puzzling until a few days before death, and without the *post-mortem* and pathological examinations much would have remained obscure. In the first place, acute colitis is very rare, and there were few symptoms in the early stage of the disease to indicate its nature. In fact, pain was the only thing complained of, and that was misleading owing to its paroxysmal and shifting nature, leading me at one time to suspect renal colic, which was soon dispelled for biliary colic, and the history of repeated attacks of jaundice seemed to confirm this latter diagnosis. Yet the gall bladder and the ducts were found normal and healthy at the necropsy. There was no trace of albumen in the urine, and the faeces gave no clue until three days before death; the bowels, however, were somewhat confined. The absence of high temperature, with increasing rapidity of the pulse, enlargement of the liver and spleen, should have been of diagnostic value as pointing to toxæmic absorption had I then any reason to suspect such. The medical officer of health's report concerning the epidemic appeared later. The septic nature of this epidemic manifested itself in various ways. Commencing, as a rule, with acute lacunar tonsillitis, many cases were followed by enlarged and suppurating cervical and submaxillary glands, others were accompanied by acute rhinitis, pharyngitis, laryngitis, with acute oedema of the glottis, parotitis, arthritis, erysipelas of the face, and a case of acute glossitis with Ludwig's angina. This was treated with the antistreptococcus serum with excellent results, and most likely had the serum been used in these other cases the result would have been very beneficial.