

DIAGNOSIS AND TREATMENT OF UNUSUAL PARIETAL PAIN

Report of a Case

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The purpose of reporting this interesting case is to call attention to a very simple but exceedingly valuable procedure as an aid in the diagnosis and treatment of some puzzling types of parietal pain. Because of their curious nature such pains are often confused with deep seated visceral pain. As a result of such confusion extensive diagnostic and more extensive therapeutic procedures are used in attempting to find the source of the elusive pain when much simpler measures will suffice if applied first.

My interest in this method was aroused about a year ago when I was asked to see an Italian laborer who had been incapacitated for several years with left upper quadrant pain following an injury. So many diagnostic procedures had failed to reveal the cause of the pain that he had been generally labeled as a neurotic and malingerer. I was immediately attracted by the patient using the index finger to point to the location of the pain, which was at the outer border of the left upper rectus muscle, and by the marked agony that he appeared to suffer on attempting to rise from the supine position. Because of the extremely sensitive condition of the small area in which he located the pain, it seemed analogous to some other local pains about the head in which excellent results had been obtained by injecting the painful areas with local anesthetic. Immediately after the injection the patient was able to perform any and all movements involving the abdominal muscles without pain. Moreover, the patient reported complete relief for 4 weeks. The pain recurred but was again relieved by injection.

Because of this startling result I have used the injection treatment in many different kinds of pain which seemed to be parietal. In many but not all instances the relief has been equally satisfactory. The following case illustrates the puzzling character of the pain, the ease of diagnosis, and finally the successful treatment.

The important points to learn from this case report are

(1) To suspect parietal pain when the pain is in or near surgical scars;

- (2) To suspect parietal pain when contraction of the abdominal muscles is an aggravating factor;
- (3) To confirm these impressions by several simple procedures;
- (4) To differentiate localized parietal pain from referred, segmental nerve root pain;
- (5) That the therapy for the pain is immediately suggested by the diagnostic procedure to be described.

CASE REPORT

A young and healthy appearing girl came to the Clinic on February 25, 1943 complaining of vomiting. She had been in good health until two years previously when she had had an attack of acute appendicitis (proven at operation). Uncomplicated recovery followed appendectomy (short right rectus incision). No drainage was used. However, shortly after discharge from the hospital, she complained of pain and soreness in the lower right quadrant. The pain was greatly aggravated by attempts to rise from the supine position. About 4 months after the onset of the pain the patient began to vomit occasionally when the pain was more severe. The episodes of vomiting increased in frequency, and in the previous 8 months the patient vomited after every meal, about an hour post cibum until recently when it occurred immediately. Most of the food eaten was eructated although the patient did not show the evidence of malnutrition proportional to this history, which aroused the suspicion of functional or neurotic vomiting. The pain in the side was not aggravated by the ingestion of food or bowel function, but the act of vomiting aggravated the pain. No urinary tract symptoms were present.

Physical examination showed a healthy appearing young woman. The only abnormal finding was the extreme pain she appeared to register on the lightest touch to the lower end of the incision. The tenderness was localized to an area the size of a half dollar. Only with the greatest contortions and grimaces of pain could she raise herself straight up from the supine position. Tenderness was extreme when the recti muscles were taut.

The well nourished state and the extreme reaction to pain strongly suggested a functional state, but a thorough study was considered advisable.

A complete gastrointestinal x-ray series was entirely normal. Urograms and plain plates of the kidney area were normal. Stool examination was normal. Basal metabolic rate was minus 3. Eye examination for possible intracranial pressure showed normal fields and fundi.

Laboratory studies showed a normal urine, normal blood count, normal blood sugar, normal blood urea, negative blood Wassermann and Kahn reactions, and two normal examinations of the feces. The examiner finally concluded that, in spite of the negative studies, the patient was not neurotic and referred her to me for a trial injection of the painful area.

It was evident that the pain was parietal and not visceral because it was aggravated rather than relieved when slight pressure was applied with the recti muscles flexed tautly. The skin was extremely hypersensitive (pinching method of testing) over the site of the pain but not over the segmental distribution of the nerve.

Five cc. of 2 per cent procaine solution was injected into the subcutaneous fat and the scar and rectus muscle with one straight plunge of the needle into the center of the

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tender area. In one minute the patient experienced complete relief and got up from the examining table without pain.

She was instructed to eat a full meal that evening and the next morning and to report what effect it had on the vomiting. She ate these two meals and also those for two more days without trouble of any kind; then her trouble returned the same as before. Three different times the area was injected with the same results. The local nature of the pain was demonstrated sufficiently for us to advise surgical removal of the scar since the most probably diagnosis was a neuroma in the scar.

On March 21 Dr. F. L. Shively incised the scar completely in the skin and subcutaneous tissue down as far as the muscles. On gross and microscopic examination there was an indurated nodule in the excised specimen the size of a small marble which proved to be an area of fat necrosis, and a small shiny nodule the size of a pea which proved to be a cyst. No evidence of neuroma was found.

The patient's convalescence was uneventful. Today, 10 weeks after operation, the patient is still perfectly well. The explanation of the etiology of such severe pain and reflex vomiting is still a mystery.

An exactly similar case was seen in a young girl with severe pain and vomiting following appendectomy. A diagnosis of a functional state was made by most of the observers who studied the case. Because of the pain in the region of the scar, I favored a diagnosis of adhesions of the omentum or intestines to the parietal peritoneum. After my colleagues had prescribed treatment without success, an exploratory operation was performed at my suggestion, and nothing abnormal was found but the patient never had another pain after the exploratory operation. The complete recovery of the patient remained a mystery to me until the case reported here was solved by the removal of the scar. In this case the incision was at the same site, the scar was dissected out, and unwittingly the patient was cured. This condition occurs frequently and can be easily recognized if suspected. In most cases the symptoms are not so extreme as in the reported case. However, the patients are quite uncomfortable and miserable from the pain especially if their work involves much use of the abdominal muscles.

The most frequent, and the most severe and disabling pains of this character occur in the abdominal muscles or subcutaneous tissues usually along the outer edge of the recti muscles, but other types of parietal pain can also be diagnosed and treated by this method.

The most common sites of pain are (1) the abdominal area in the region of the surgical scar and especially along the outer edge of the recti muscles; (2) the area near the end of the short ribs; (3) the area between and below the scapula; (4) areas in the large low back muscles; and (5) scattered areas too indefinite to classify.

In many cases an injection with a local anesthetic not only gives relief for the few hours of the anesthetic action, but frequently for weeks and

months. The explanation of this phenomenon is not any more clear than the pathology; a doctor with whom I discussed this recently assured me that he was getting similar results with the injection of air.

The etiology of these painful spots would appear to be most logically explained on the basis of trauma. Nearly all cases followed surgery or a fairly definite history of trauma, although at times this may have consisted only of a powerful, sudden contraction of a muscle in the affected area.

Before being aware of the value of injection in these cases, I had 5 cases of disabling pain at the end of the floating ribs under observation at one time. Nothing except strapping gave relief, and this was unproductive for any length of time. Such pain is fairly persistent and at times disabling, but one injection at the end of the affected rib frequently gives permanent relief. The same is true of the extremely painful areas occurring about the scapula.

The detection of these spots is best learned by experience, and the rapid injection of novocain has given better relief than the slow infiltration. The use of saline has been suggested but not tried in my experience. The effect of air has been mentioned, which would suggest that the beneficial effect is one of distention rather than of anesthesia.

I am certain that many pains can be diagnosed as being parietal in nature by this method, and if tried early instead of late the procedure will often save more expensive and time-consuming methods. The confirmation of pain in the abdomen as parietal in nature rather than intraabdominal often will save a useless exploratory operation. Furthermore, amazingly quick relief may be appreciated from certain types of pain which never have been relieved by methods previously at my disposal. The relief is often permanent or of sufficient duration for periodic injections to be adequate therapy.

In conclusion, this simple method is presented as a definite aid in the diagnosis and treatment of many discretely localized but indefinite types of pain.