Abdominal Pain In Pneumonia

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Referred abdominal pain sometimes occurs in pneumonia. When it is present, it becomes an important symptom because it focuses attention on the digestive tract, thereby tending to cause errors in diagnosis.

Thoracic pain occurs in eighty percent of patients with pneumonia, while abdominal pain occurs in eight percent of these patients, according to Chatard (1).

The appearance of thoracic pain in the early stages of pneumonia is a helpful sign, because it directs attention to the respiratory tract, thereby aiding in the interpretation of the disease process; while the appearance of abdominal pain distracts attention from the pulmonary tract and focuses it on the digestive tract, and so may give rise to confusion.

Thoracic pain bears a definite embryologic, anatomic and neurologic relationship to pneumonia, hence its appearance is to be anticipated; but abdominal pain bears none of these relationships. Its appearance is a physiologic surprise and it becomes a problem for study and consideration.

Although abdominal pain occurs in about eight percent of patients with pneumonia, yet in most of them the abdominal distress presents little diagnostic difficulty for it is easily recognized as a functional dyspepsia resulting from the toxemia. The dyspeptic symptoms commonly encountered are: loss of appetite, diffuse abdominal pain, meteorism, distention, flatulence, distress after eating, constipation, sometimes nausea and vomiting.

However occasionally, the abdominal pain and other associated symptoms may be so violent as to overshadow the thoracic symptoms. In these cases the digestive symptoms may become so pronounced and so sharply localized that they may simulate acute surgical crises of the abdomen, as appendicitis, cholecystitis, peptic ulcer, intestinal obstruction, etc. Indeed several writers have stated that patients with pneumonia have been operated on for supposed appendicitis or other acute surgical crises of the abdomen when the entire syndrome proved to be referred pain from the lungs.

Thus, Brown (2) states that the acute abdomen simulating appendicitis may be met in central pneumonia. Norris (3) states that patients with pneumonia have been seized with such violent abdominal pain accompanied with rigidity of the abdominal muscles that a laparotomy has been performed for supposed appendicitis when the peritoneal cavity proved to be entirely normal and pneumonia was found to be the cause of the abdominal disturbance. Reiman (4) states that the pain in pneumonia may be referred to other parts of the trunk, and may suggest acute appendicitis and unnecessary operations have been performed as a result.
In studying the literature, one finds these and other general statements about the referred pain from pneumonia simulating acute abdominal crises, but the recording of actual cases is rare.

For a number of years, we have been interested in the problem of abdominal pain and its bizarre manifestations. We have long recognized that the abdomen is the barometer of the body, that it tells of trouble but does not always locate it; that the cause of abdominal pain may originate either within or outside of the abdomen; that the severity of the abdominal pain is no index of the location or of the cause which gives rise to it, that the most violent types of abdominal pain may originate from causes either within or outside of the abdomen, and the same holds true for mild types of abdominal distress.

Pneumonia is but one of a number of conditions located outside of the abdomen which is capable of producing digestive disturbances. Among some of the other extra-abdominal causes for abdominal distress mentioned recently in the literature are the following: psychic disturbances, disorders of the central nervous system, diseases of the cardio-vascular system, the onset of pulmonary tuberculosis, disorders of the renal system, diseases in the pelvis, anorectal disease, epilrapnie, etc. Some of these extra-abdominal causes for abdominal pain, we have discussed elsewhere (3, 6, 7, 8, 9, 10).

Pursuing our interest in the bizarre causes of abdominal pain, we have encountered a number of instances of abdominal pain due to pneumonia, where the gastrointestinal tract was found to be essentially normal and the pain apparently had its origin in the pneumatic process.

CASE I. Lobar Pneumonia Simulating Acute Appendicitis. Laparotomy with Recovery.

W. G., a white adult male of 55 years was admitted to the surgical ward of a local hospital because of acute abdominal pain in the right lower quadrant of the abdomen several days in duration. During the past twenty-four hours, the pain had become quite sharp. He was nauseated and vomited when he attempted to eat. He felt warm, complained of a slight headache. The abdominal pain had become so sharp that it caused him to lie down with his legs drawn up, in which position he felt less pain.

Physical examination showed a white male, well nourished, acutely ill, weighing 160 pounds, 5 feet 9 inches in height; his temperature was 102, his pulse was 100, his respiration 22, his blood pressure 110/64.

The heart borders were normal, the rate rapid, the breath sounds were vesicular, some scattered rales were heard. The reflexes were present, equal and exaggerated.

Comment. During the operation his temperature rose to 104, the patient developed a cough, the respirations became shallow and labored; dulness appeared over the right lower lobe, also there appeared increased voice and tactile fremitus and numerous moist rales. The presence of a lobar pneumonia was evident at this time. Penicillin was given. The clinical course was typical of a lobar pneumonia. Recovery was uneventful.

Physical examination showed a white young woman twenty years of age, weighing 95 pounds, measuring 5 feet in height, apparently acutely ill. Her temperature was 103, her pulse was 120, her respiration was 26, her blood pressure was 96/50.

The urine contained a trace of albumen, the white blood count was 12,600 with 89% po\]ys, 9% lymphs and 2% mononuclears. A diagnosis of Acute Appendicitis was made. Appendectomy was advised and performed. The appendix, subsequently, showed no important changes on gross and microscopic examination.

The following day, the patient manifested a cough and complained of pain in the right chest. Examination at this time showed impaired resonance over the right lower lobe, also there was present increased voice frimitus, bronchovesicular breath sounds and numerous moist rales. The signs of consolidation were evident, also the respiration was labored and there was present marked dyspnoea.

The presence of a right lower lobar pneumonia was evident at this time. Sulfathiazole was given. The patient ran a typical pneumonia course. The crisis occurred on the fourth day. Recovery from both the appendectomy and the pneumonia was uneventful.

Comment. Miss D. H., a student nurse in a local hospital, was admitted to the surgical section on May 7 because of diffuse cramp like pains in the abdomen, also she was nauseated, had lost her desire for food, was constipated and ached all over. Later in the day the pain settled in the right lower quadrant of the abdomen as a severe crampy pain which made it impossible for her to continue her duties. Beyond her extreme fatigue and abdominal distress, she had no important symptoms. There was no cough, pain in the chest, no pain in the abdomen. Physical examination showed a white young woman twenty years of age, weighing 95 pounds, measuring 5 feet in height, apparently acutely ill. Her temperature was 103, her pulse was 120, her respiration was 26, her blood pressure was 96/50.

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CASE II. Lobar Pneumonia Simulating Acute Appendicitis. Laparotomy with Recovery.

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Comment. Patient D. H. presented a syndrome of abdominal pain and other symptoms suggestive of acute appendicitis as an expression of a right lower lobar pneumonia. The appendix was subsequently found to be free of inflammatory changes. The abdominal symptoms were referred from the pulmonary region. They were functional in character, and subsided with the recession of the pneumonia.

CASE III. Lobar Pneumonia Simulating Intestinal Obstruction.

The following case of abdominal pain in pneumonia simulating intestinal obstruction is of special interest because the abdominal pain occurred on the opposite side to that of the pneumonia. We are indebted to Dr. Wolkenweber of Denver for this case report.

Mrs. B. G., a white woman of 70 years, complained of pain in the right lower quadrant of the abdomen. The distress was several days in duration. It was dull and constant in character and very annoying, causing her to...