This woman, aged 36, has been in good health except for slight respiratory infection with cough of two weeks duration. This morning, she went for a swim in a lake. During the swim, she had a severe attack of cough, aspirated considerable water and almost drowned. She did not lose consciousness. She was brought ashore in a state of extreme exhaustion and complained of chest pain and shortness of breath. She was brought immediately to the hospital. On admission, she was expectorating large amounts of water, but no frothy or bloodtinged sputum. She had no fever or leukocytosis, but the sedimentation was moderately elevated.

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Diagnosis: Basilar Infiltration

The chest roentgenogram taken on admission (Fig. 1) shows diffuse fuzzy basal infiltrations in both lungs. A film made the following day (Fig. 2) shows considerable improvement. The heart appears slightly enlarged on both films. A roentgenogram made six days later was normal (Fig. 3). The symptoms disappeared about two days after admission.

There are relatively few cases reported illustrating the roentgen changes in near drowning. In a very interesting article, Rosenbaum, Thompson and Fuller1 presented a review of the seven cases in the literature and reported ten additional cases. The clinical symptomatology in these cases are, as Fuller4 pointed out, attributable to hypoxia, pulmonary edema and water aspiration. Fever and leukocytosis may result from secondary inflammatory reaction. Acute pneumonia may complicate the edema. Rosenbaum and his co-workers stress the importance of giving antibiotics to prevent this complication. In the present case, antibiotics were given for that purpose. As a rule the lungs clear within about six days. The cardiovascular system, always strongly strained in cases of near-drowning, should be given due attention until the patient is completely recovered.

Rosenbaum, Thompson and Fuller1 make a distinction between the roentgen findings in cases of near drowning and drowning as compared to those in aspiration of water. The patients with near drowning present a roentgen picture of pulmonary edema with a spectrum of changes ranging from fluffy perihilar confluent and nodular densities to a more homogeneous involvement of the entire lung by somewhat smaller nodular infiltrates. Cases in which drowning occur present a similar spectrum of changes, although the findings are more marked. The aspiration cases show a pattern of basilar infiltration with sparing of the remainder of the lung. This case fits this aspiration pattern.

References

Benjamin Felson, M. D., Editor
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Readers are invited to submit articles for the Roentgenogram of the Month. Please submit a brief abstract of your case to Benjamin Felson, M.D., Department of Radiology, Cincinnati General Hospital, Cincinnati, Ohio.