

Roentgen Treatment of Infections

By

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PREFACE

Much has been well written about the x-ray treatment of skin diseases and the same may be said for the neoplastic diseases, but no text has been written in this country with special attention to x-ray treatment of the infections.

When one stops to consider the absence of mortality in the first group (skin diseases) and the hopelessness of a large proportion of cases in the second group (cancer), it is difficult to understand why more attention has not been directed toward the third group (infections). In this group are found several infections of the acute fulminating variety with a high mortality rate unless they are treated with x-rays. In other words, no text has been available on the use of x-rays as an aid in treating those diseases for which x-ray therapy is essential if life is to be preserved.

Several years ago we started to treat many of the more serious acute infections at the bedside with a home-assembled mobile therapy unit. With this procedure we have secured a great reduction in morbidity and mortality in such diseases as gas bacillus infection, acute spreading peritonitis, surgical mumps and others equally toxic and fatal.

One cannot fail to observe the antitoxic effect of x-rays, the lowering of temperature, slowing of the pulse and respiratory rates and the other favorable changes in the clinical signs if one treats a few patients with such diseases after they appear to be too seriously ill to be moved from bed for any purpose. It is sincerely hoped that this text will fill to some extent the gap that exists in what has been written on x-ray treatment of skin diseases and the neoplasms.

Our grateful thanks are due to so many that omissions may occur without intention to neglect anyone.

The physicians who have contributed to this study for the past several years are mentioned first, because without them this presentation would not have been possible. Through their generous cooperation, results equivalent to 50 or more years of study and progress in the prevention and treatment of gas gangrene have been compressed into 10 years. It is sincerely hoped that our list of contributions is complete.

To the many writers who have kindly permitted us to use extracts from their books or articles and their publishers, we express thanks. Specific acknowledgments are noted at appropriate places through the text. To Drs. Quimby, Weatherwax, Glasser, Taylor, Failla and their associates we are also indebted. This group of physicists regularly attend our national meetings to lecture and to teach. We sincerely trust that our interpretation of their fundamentals of dosage administration and their application to the acute infections has been correct. We are also greatly indebted to Dr. J. G. Pasternack and Dr. Ida A. Bengtson and to the officials of the United States Public Health Service for permission to use the illustrations and other material from their work.

In addition, during this study, we have become indebted to the following physicians: Frederick W. Niehaus, B. Carl Russum and F. E. Colien of Omaha, for help in bacteriologic studies; John T. Murphy, Toledo; Edward L. Jenkinson and Thomas G. Hull, Chicago; Samuel W. Donaldson, Ann Arbor; Grover C. Penberthy and Eldwin R. Witwer, Detroit; and Vincent W. Archer, University of Virginia, for their cooperation and assistance with various presentations of exhibits and papers; also to Drs. Leon J. Menville and Howard P. Doub for their courteous cooperation in the publication of papers; to Dr. Wayne A. Johnston, Dubuque, Iowa, for his courage in opening the discussion in St. Louis in 1931 of our first paper, and finally to Dr. Edward H. Skinner, Kansas City, to whom we are deeply indebted for our early training in radiology.

These acknowledgments would not be complete without paying our respects to the surgeon, John R. Dwyer, whose attitude of the true physician resulted in the first x-ray treatment for a patient with gas bacillus infection. One less interested in the welfare of his patient could have proceeded without requesting further aid and thereby allowed the unanimous prognosis of all the consultants to come true. Dr. Bernard V. Kenney, the patient's family physician, must also be credited for his prompt approval of the use of a then untried method.

To the members of the professional and nursing staffs of St. Catherine's (Nash Memorial) and Creighton Memorial St. Joseph's and Mercy (Council Bluffs) Hospitals and also to the teaching staffs of the preclinical subjects in the Creighton Uni-

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—JAMES F. KELLY.

—D. ARNOLD DOWELL.

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