Indications for Collapse Therapy

THERE IS NO FORM OF TREATMENT FOR PULMONARY TUBERCULOSIS IN WHICH SUCH RAPID PROGRESS HAS OCCURRED IN RECENT YEARS AS COLLAPSE THERAPY. WHILE IT CAME INTO GENERAL USE IN THIS COUNTRY IN THE FORM OF ARTIFICIAL PNEUMOTHORAX ABOUT 1912, IT WAS ONLY USED IN THE EXCEPTIONAL CASE FOR SOME YEARS. DURING THE WRITER'S EXPERIENCE ITS USE HAS EXTENDED FROM A SMALL PERCENT OF CASES WITH IDEAL INDICATIONS TO THE POINT WHERE IT IS AT LEAST CONSIDERED IN EVERY PATIENT WHOSE DISEASE HAS PASSED THROUGH THE EARLY STAGES.

MY PURPOSE IN THIS PAPER IS TO BRING OUT A FEW POINTS ON THE INDICATIONS FOR THE VARIOUS FORMS OF PULMONARY COLLAPSE USED IN PHthisIC-THERAPY, MAINLY BECAUSE I BELIEVE THERE IS A GROWING TENDENCY TO CARRY THIS TREATMENT TO THE OTHER EXTREME. THIS IS OFTEN THE CASE WHEN A METHOD OF TREATMENT MEETS WITH SUCCESS AND IT WOULD SEEM WISE TO STRIKE A HAPPY MEDIUM BETWEEN EXTREME CONSERVATISM AND THE MORE RADICAL MEASURES WHICH ARE BEGINNING TO BE EMPLOYED.

OF ALL FORMS OF COLLAPSE THERAPY, ARTIFICIAL PNEUMOTHORAX REMAINS THE BEST PROCEDURE, IF IT CAN BE USED, AS IT IS THE SIMPLEST AND SAFEST AND AFFORDS THE MOST SATISFACTORY COLLAPSE OF THE DISEASED AREA. IT HAS THE ADDITIONAL ADVANTAGE THAT IT CAN BE ABANDONED SHOULD ACTIVE DISEASE OCCUR IN THE CONTRALATERAL LUNG. THE IDEAL INDICATIONS ARE EXTENSIVE DISEASE IN ONE LUNG WITH LITTLE OR NO DISEASE IN THE OTHER. THE TENDENCY IN THE PAST HAS BEEN TO DELAY COMPRESSION UNTIL THE PATIENT WAS GIVEN A CHANCE TO IMPROVE WITHOUT IT; HOWEVER, IN SO DOING VALUABLE TIME HAS FREQUENTLY BEEN LOST AS DURING THE DELAY ADHESIONS HAVE FORMED WHICH PREVENTED EITHER THE INDUCTION OF THE PNEUMOTHORAX OR SUFFICIENT COLLAPSE TO BE EFFECTIVE. WHILE WE ARE AWARE OF THE FACT THAT EXTENSIVE PULMONARY DISEASE WITH CAVITATION MAY HEAL WITHOUT COLLAPSE, THE CHANCES ARE SO MUCH BETTER WITH IT, THAT PNEUMOTHORAX HAD BETTER BE INDUCED AT THE START IN THIS TYPE OF CASE; IN FACT, WHEN AN ULCERATIVE PROCESS OF ANY EXTENT HAS BEEN ESTABLISHED PNEUMOTHORAX HAD BETTER NOT BE DELAYED. WE NO LONGER HESITATE TO INDUCE A PNEUMOTHORAX IN THE PRESENCE OF A SMALL INFLTRATIVE PROCESS IN THE CONTRALATERAL LUNG, AND IN FACT WE FREQUENTLY NOTE THAT THESE INFILTRATIONS CLEAR UP MORE RAPIDLY AFTER THE OTHER LUNG HAS BEEN COLLAPSED. DUE TO THE FACT THAT AIR TENDS TO COL lapse THE DISEASED AREA FIRST, WE MAY BE ABLE TO INDUCE A SELECTIVE COLLAPSE AND COMPRESS ANY PART OF THE LUNG WHERE IT IS NEEDED. WHEN THERE IS A PROCESS IN THE OPPOSITE LUNG, THIS IS THE BEST PLAN TO FOLLOW. SELECTIVE BILATERAL COLLAPSE IN THE PRESENCE OF BILATERAL CAVITATION IS A MORE RECENT DEVELOPMENT IN PNEUMOTHORAX THERAPY AND HAS NOT MET WITH CONSIDERABLE SUCCESS IN CAREFULLY SELECTIVE CASES, BUT NATURALLY THE METHOD IS MORE LIMITED.

DUE TO THE SUCCESSFUL TREATMENT OF ADVANCED CASES, THE TENDENCY TO INDUCE PNEUMOTHORAX EARLIER IN THE DISEASE HAS BEEN THE NATURAL COURSE OF EVENTS; HOWEVER, THERE IS A LIMIT TO BE REACHED AND IT SEEMS THAT UNLESS CAVITATION OR EXTENSIVE ULCERATION IS PRESENT THE PATIENT SHOULD BE GIVEN A CHANCE TO IMPROVE ON A SANATORIUM REGIME. THE VIEW THAT IN TIME PULMONARY TUBERCULOSIS WILL BECOME A SURGICAL DISEASE SEEMS TO ME TO BE ERRONEOUS. PNEUMOTHORAX OR ANY FORM OF COLLAPSE REMAINS AN ADJUNCT TO THE TREATMENT; AND IN VIEW OF THE DANGERS AND COMPLICATIONS WHICH MAY ENSEL I AM NOT IN SYMPATHY WITH THE USE OF PNEUMOTHORAX IN EARLY CASES WITH SLIGHT OR MODERATE INFILTRATION OFTEN EVEN WITH A NEGATIVE SPUTUM. SHOULD THIS TYPE OF CASE FAIL TO IMPROVE BY REST AND CAREFUL MANAGEMENT THERE WILL BE TIME FOR PNEUMOTHORAX THERAPY.

PHRENOECTOMY IS A METHOD VERY POPULAR IN SOME SECTIONS AND Seldom used by others. IT RARELY GIVES AS SATISFACTORY RESULTS AS PNEUMOTHORAX BUT AT TIMES THE RESULTS ARE BRILLIANT. WE NOW HAVE A CASE WITH EXTENSIVE UNILATERAL, UPPER Lobe, cAV-
DISEASES OF THE CHEST

Itation in which pneumothorax could not be induced and thoracoplasty was refused, in which after three months, after a phrenicectomy by Dr. Julian A. Moore, the cavities are less than one-third the size and the comparison of x-ray films is almost unbelievable. The patient had been on bed rest previously before coming to Asheville. While the above case is the exception, phrenicectomy should be tried on these cases especially since the operation is relatively easy for the patient. In a case of partial pneumothorax, phrenicectomy may give the added collapse necessary to effect the closure of a cavity. We have seen cases with cavitation in which pneumothorax had been abandoned or where the space had been lost and seen the cavity close after phrenic excision. Phrenicectomy is more effective in apical than basal cavities due to the fact that the latter are usually associated with adhesions which prevent the ascent of the diaphragm. Phrenicectomy should be used with caution in cases complicated with dyspnea and if done at all, only a crushing of the nerve should be employed. Phrenicectomy is usually performed as a preliminary to thoracoplasty.

Extrapleural thoracoplasty is the operation of chance when pneumothorax cannot be induced and the process is too extensive or does not show improvement after phrenic excision. Naturally, the cases are selected with greater care, as it is a serious procedure and cannot be abandoned; however, when other measures have failed and the patient is thought to have a poor chance to recover without collapse therapy, or that the cure will be greatly prolonged, it should not be delayed. It is contraindicated in the presence of active disease in the contralateral lung. Thoracoplasty should not be considered as a last resort measure and should be performed before the patient's general condition becomes unfavorable.

Pneumolysis, or cauterization of adhesions, is often of striking benefit. By severing adhesions a partial pneumothorax may be converted into a complete, or a cavity which is held by adhesions may be freed and successful closure accomplished.

Conclusions

Pulmonary tuberculosis in the early stages should be treated by rest and careful management which is best carried out in a sanatorium.

Pneumothorax should not be tried in early cases until they have been given a chance to improve by conservative methods. In more advanced cases it had better not be delayed.

Thoracoplasty should not be used as a last resort and should be performed earlier in the disease when pneumothorax cannot be induced.

OBITUARY

The death of Franklin D. Martin, Director of the Journal of the American College of Surgeons, has come to our notice. Few men living in the last fifty years have exerted as much influence on the medical profession.

His ability as an organizer has seldom been surpassed in any sphere. He was one of the best known men of the medical profession.

His presentation book, issued in October, 1934, should be in the library of every doctor of the age. It is an inspiration to the old and the young alike, and should be read by every student who contemplates following his beloved profession.