Kartagener’s Triad
(Situs Inversus, Bronchiectasis and Sinusitis)

REPORT OF A CASE

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Recent reports have stressed the importance of doing bronchograms and sinus studies on people with situs inversus because of the greater incidence of bronchiectasis and chronic sinusitis in these people. The incidence of bronchiectasis at Massachusetts General Hospital in 232,111 admissions was 0.3 per cent as compared to 21.7 per cent in the 23 cases of situs inversus. The Mayo Clinic and the State of Wisconsin General Hospital had similar statistics.

Since Kartagener’s report of 11 cases of bronchiectasis, chronic sinusitis and situs inversus there have been a total of 41 cases reported up to 1951. Two more were reported by Gross and one by Katz et al in 1953.

FIGURE 1: Chest film showing situs inversus of chest structures and irregular confluent basilar markings consistent with bronchiectasis.

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I am reporting an additional case with a coincidental diagnosis of acute rheumatic fever.

This 21 year old caucasian was always in good health until he developed redness, swelling and pain in both knees and ankles the day prior to entry into the hospital. About 10 days prior to admission he had a several day bout of upper respiratory infection with a slight sore throat. Physical examination was negative except for dextrocardia and red, swollen, tender
knees and ankles bilaterally. No murmur was heard. His course was fairly
typical of acute rheumatic fever with rapid subsidence of signs and symp-
toms of joint involvement on aspirin. Also other signs of rheumatic activity
soon became negative including sedimentation rates, C-reactive proteins,
and minor nonspecific T-wave changes on electrocardiogram.

In view of the dextrocardia a search for manifestations of Kartagener's
triad was conducted as well as proving that situs inversus universalis
existed. A gastrointestinal x-ray series showed the stomach to be on the
right side. The gall bladder by x-ray study was also reversed and on the
left side. Films of the sinuses showed definite marked thickening of the
mucous membranes of both maxillary and ethmoid sinuses. The chest film
revealed confluent and irregular vascular markings to both bases consistent
with bronchiectasis. A bronchogram using lipiodol showed evidence of
bronchiectasis of the basilar portions bilaterally, left middle lobe and right
lingular division. See illustrations.

He never had clinical manifestations of sinusitis or bronchiectasis.

REFERENCES

2 Zuzkerman, H. S. and Wurtzebach, L. R.: "Kartagener's Triad. Review of Literature
4 Katz, M., Benzier, E. E., Nangeroni, L. and Sussman, B.: "Kartagener's Syndrome
   (Situs Inversus, Bronchiectasis and Chronic Sinusitis)," New Eng. Jour. Med.,
   248:730, 1953.