

LOGY

ASBESTOS

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idea must be evoked
from more experi-
on a decomposition
then we must also
the co-carcinogen
tion) later induces a
preparedness of the
is brought about
be regarded as an
also attach to the
is not apparently

a proportion of
disease arose that
lung cancer.

showed that the
intervals between
malignant disease
half of these cases
one remarkable
only 19 months.
cases of associated
lung of six cases of

of Factories,
deaths caused by
present, and it is
group 25-34 years
dition. It will be
Bloyno's findings.
end of 1954, he
cancer of the lung

on (1948) give an
asbestosis among
with medium
authors, is seven

logy of asbestosis,
is reported in the
(14.2 per cent)
lung tumours were

The discrepancy between the two incidences in Switzerland is of the same order as that found in the smaller series by Lynch and Cannon in the United States.

Suggestive as these and other data are, Stoll, Bass and Angrist (1951) were dissatisfied with the statistical weight one could put upon available figures at that time which included, in addition to those of Lynch and Cannon, a series of 235 cases of asbestosis with 31 carcinomas of the lung (13.2 per cent) which is again almost identical with the finding of Behrens. They refer also to another series of 115 cases with 14.8 per cent lung tumours.

Describing the case of a worker who had been engaged for only 6 years covering pipes with asbestos and who had refused to take precautions by wearing a respirator, they point out that except for weakness and persistent cough nothing noteworthy was found until malignant cells were found in the bone marrow. Radiographs of the chest showed numerous large discrete oval shadows which were interpreted rather as metastatic deposits than primary tumours. Post-mortem examination showed asbestosis with scattered large nodules and metastases in kidneys, brain and liver. Histological examination confirmed the presence of asbestosis bodies and anaplastic carcinoma of the lung, with numerous metastases. There appeared to be some doubt about the primary focus of malignancy in this case, and the authors inclined toward a multiple origin. Whether this case is relevant to the problem of asbestosis cancer is open to question, but the authors were led to suggest that asbestos must itself be regarded as a direct carcinogen in respect of its composition as a silicate.

A less compromising attitude is taken by Werber (1952) who states categorically that in 7-17 per cent of cases of asbestosis after a latent period of about 14-20 years, as a result of epithelial metaplasia, carcinoma becomes established in the lung. Werber then reports what appears to be a clear-cut case successfully operated on. The patient was a man of 58 years who, after years of work in asbestos with complaint of irritant cough, showed, in a mass radiographic investigation, a well-marked dense round shadow in the right lower lung field associated with bilateral finely granular shadows in the middle and lower fields, more marked on the right side.

Lobectomy of the right lower lobe confirmed the presence of a non-keratinizing squamous cell carcinoma. Nearly the whole of the lower lobe was occupied by an almost certainly bronchogenic (postero-lateral segment) tumour. Asbestosis bodies were found in the lung and in an excised hilar lymph node. Recovery was uneventful and x-ray examination showed later expansion of the upper and middle lobes.

A suggestive case is also described by Cureton (1948) of a young woman of 37 years who 15 years before had left asbestos work after 7 years in the industry. Necropsy showed a predominantly squamous-celled bronchial carcinoma accompanied by asbestos bodies and fibrosis in both lungs. This author is cautious about the relation between the neoplasm and the asbestosis