It has long been felt that a specific antigenic test for cancer would be of great assistance in early diagnosis and might enable treatment to be instituted while it had a better chance of being effective. The test might also be used to estimate the success attained in treatment and to indicate whether further treatment, surgical or medical was necessary. As the difference between cancerous cells and normal tissue is narrow, so the difference in their metabolism is small. To this difference the test would need to be sensitive, and to be of use in diagnosis the specificity of the test would need to satisfy somewhat rigid criteria. Dunn and Greenhouse (1950) laid down such criteria, viz., '90% accurate in cases of cancer and at least 95% accurate in non-cancerous patients'.

Mann and Welker (1943) found that carcinoma in any part of the body releases into the blood stream certain substances against which antibodies develop. They concluded that these substances are part of the molecule of the carcinomatous tissue and that these fractions are not present in normal individuals. Earlier findings concerning cancer antibodies obtained by Makari and Huck (1955), utilizing the Schultz-Dale bath technique, which is one of the most sensitive methods of detecting antibodies, have recently been confirmed and elaborated by Burrows. In this method the uterus of an immunized guinea-pig is suspended in a bath of saline, to which the serum to be tested is added after the uterus has been desensitized to normal (i.e., non-carcinomatous) serum by previous exposure to and saturation by normal serum. A positive result is indicated by a contraction of the immunized uterus, and touches upon the very essence of the genesis of neoplasia. A quantitative estimation of the amount of antibody developed shows that there is no relation between the size of the tumour and the amount of antibody once the critical size of 1 cm. in diameter has been attained by...
van 96.7%.* En uit die 207 karsinoomvrye pasiënte wat die toets ondergaan het, was 200 negatief, d.w.s. die toets was korrek by 96.6%.* Slegs by 19 gevalle is die antigeen-toets toegepas ná sowel as vóór die karsinoom verwyder is. Oor die algemeen blyk dit dat dit verskeie maande duur voordat die antigeen verdwyn. Dit is duidelijk dat verdere navorsing in hierdie verband nodig is.

As finale tour de force het Burrows en Neill (1958)** voortgegaan om die aktiewe bestande deel van die immuunliggaampie, wat by kankerpasiënte teenwoordig is, uit te kent. Hierdie navorsing is by wyse van elektroforetiese metodes uitgevoer en die uitslae toon dat dit 'n polipeptide is, spesifiek 'n muco-polipeptied. Dit is bewys dat hierdie polipeptied verwant is aan, of dieselfde is, as die polipeptied wat by nefrose voorkom.

Hierdie verslae gryp die verbeelding aan. Is die aanleg wat verantwoordelik is vir die oorsprong en groei van karsinoom basies immunologie? As daar 'n gemeenskaplike antigeen, en 'n ooreenstemmende immuunliggaampie, by die verschillende sorte karsinoom voorkom, hoe kan hierdie ontdekking die voorkoming of die behandeling toegan ken word? Kan die liggaam gehelp word om die teenstof teen karsinoom te ontwikkel? Hoewel dit gerade is om ons bespiegeling in toom te hou, kan ons die uitslae van verdere navorsing op die gebied, wat deur hierdie ontdektings ooggestel is, met afgemete optimisme afwag. Ons kan hoop dat die donker sluiwer van onwetendheid binnekort verder oopgetrek sal word, en dat ons op die drumpel van groot gebeurtenisse in die kliniek staan.


NOTES ON THE CARE OF LEADWORKERS*

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The rapidly developing industrialization of the Union of South Africa not only brings with it increased risks to life and limb by machinery, but it is also accompanied by the appearance of diseases peculiar to industry. Some of these diseases are new to the industrial scene; others have a long, if not an honourable, history behind them.

For the greater part, it is into this latter category that poisoning by lead and its inorganic compounds falls. Legge and Goadby (1912) in their historical survey of the use of lead refer to the description by Pliny of lead colic and mention that Hippocrates was apparently familiar with the condition among lead smelters. Throughout history writers have connected the well-known toxic symptoms of colic and palsy with the ingestion of lead.

Owing to its valuable properties of malleability and relatively high resistance to corrosion, in addition to the innumerable and varied applications of its compounds, lead has found a widespread usage in industry. Its consumption in this country is rising rapidly, many recently established industrial processes requiring large amounts of the metal or its compounds. Thus it can be expected that with every year more workers will be exposed to the dangers of lead poisoning.

Occupational Environment. A knowledge of the occupational environment is considered a prerequisite in the supervision of the health of industrial workers. The doctor who is familiar with the working conditions of his patients is at a great advantage in diagnosing and treating their ailments. The care of workers subject to a toxic hazard calls for a two-pronged approach—one, the investigation and control of the working environment; the other, the periodic examination of the individual workers for evidence of adverse effects. The results of the latter, in turn, serve as pointers to hazardous operations or areas.

Plant Inspection. It is important, therefore, that the doctor should from time to time study the working environment of his patients. On these occasions he should be accompanied by a representative of management. It has been stressed by many workers in this field that without the cooperation of