

activity. The material isolated and gravimetrically determined as P.G. is clearly not that substance, since it is apparent that 93-100% of this material consists of impurities. This P.G.-like material appears indistinguishable from amorphous Na P.G. by color and solubility properties. The second acetone precipitation used by Venning⁴ for final purification precipitates this impurity as well as Na P.G. Similar results were obtained on patient 9, who also failed to exhibit luteal activity as determined by vaginal smears.

Summary. The results presented indicate the necessity for determination of the purity of the P.G. isolated from non-pregnant urine. It has been clearly shown that the modifications reported by Venning⁴ do not necessarily remove all impurities from the final product. The implications of these findings, for much of the data in the literature, are clear. In the light of our results, the finding (first reported by Hamblen, *et al.*,²) that P.G. may be present in the absence of a secretory endometrium, particularly warrants critical reëxamination.

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Intrapleural Tuberculosis Following Talc Pleuritis.

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The artificial induction of aseptic pleuritis by the injection of talc into the pleural space has been reported by a number of different workers.¹ This procedure has been recommended for the purpose of producing adhesions which will prevent recurrent spontaneous pneumothorax from collapsing the lung, or may allow a selective collapse, with only an affected portion of the lung collapsed. It has also been advised as a preliminary to operations on the lung, such as drainage of abscesses, cysts or cavities, or before partial or complete amputation of a lung, to diminish the extent and severity of subsequent infection.² In view of the frequency of tuberculous involvement of the pleura, it seemed desirable to study the effect of such talc pleuritis on intrapleural tuberculosis before endorsing its use in such conditions.

¹ Bethune, Norman, *J. Thoracic Surgery*, 1935, 4, 251.

² Singer, J. J., Jones, J. C., and Tragerman, L. J., *J. Thoracic Surgery*, 1941, 10, 251.

Three rabbits were each given 2 g of talc (U.S.P., Merck), suspended in 5 cc of normal saline solution, injected into the right pleural cavity. Four months later these rabbits, together with 3 other previously untreated animals were each inoculated, in the right pleural cavity, with 0.001 mg of a virulent culture of bovine tubercle bacilli. One month after this infection, X-ray examination showed extensive densities throughout both lungs in the 3 animals which had received the talc, with but little change detectable among the 3 controls. At autopsy, 2 months after infection, the talc-treated rabbits showed extensive nodular caseous tuberculous lesions in both lungs, scattered small caseous nodules in both kidneys, caseous mediastinal lymph nodes and extensive pleural adhesions in the right side. The control animals showed much less extensive lesions, limited mainly to the intercostal and mediastinal lymph nodes, with little or no pulmonary or renal involvement, and no pleural adhesions.

Repetition of this experiment, with different amounts of talc and with different time intervals between the treatment with talc and the injection of tubercle bacilli, on 3 other occasions have given similar results. Further studies of the mechanism of this phenomenon are being carried out. The observations here reported, however, indicate that induced talc pleuritis increases the spread of later intrapleural tuberculous infection, in rabbits, and suggest that it should not be undertaken in man without due consideration of this danger.

TABLE I.
Extent of Tuberculosis in Experimental Animals.

No. of rabbits	Amt talc given intra-pleurally g	Interval before infection, wks	Avg amt of tuberculosis				
			Lungs	Kidneys	Lymph nodes	Pleura	Total
4	4	26	+++	+	+	++	7
3	2	16	+++	++	+	++	8
3	1	3	+++	+	+	++	7
3	1	1	+++	+	+	+	6
10	None	Infected controls	++	+	+	0	4
4	1	Uninfected controls	0	0	0	0	0