INTRODUCTION

Cancer of the prostate is a very common disease in western Europe and in the United States: it is one of the leading causes of death from cancer in man. However, the incidence of the disease is sometimes controversial due to a confusion in terminology and methods of statistical computation.

One must distinguish on the one hand between overt cancers with urinary or metastatic signs and symptoms and on the other hand latent cancers which do not manifest any symptomatology and are discovered by chance or by systematic pathological investigation.

The incidence of microscopic cancer, studied by the "step section technique" is shown in figure 1: as clearly demonstrated, it increases exponentially and over 50% of men over 80 have some microscopic areas of cancer in their prostate (1,2). A routine microscopic analysis (a few sections at random in the gland) ignores many microscopic cancers, as shown in figure 2. The striking difference between the curves suggests that the tumor has a long period of biological latency, about 20 years (1).

The clinical incidence of prostatic carcinoma is, happily, far below the microscopic incidence. This disproportion is due to many factors including the fact that prostatic cancer is a disease of the elderly man and that many such subjects with focal and unsuspected cancer die of other conditions such as cardio-vascular, respiratory and other diseases.
Fig. 1. Incidence of prostatic cancer, with the step section technique. From Hirst and Bergman (1).

Fig. 2. Probability of discovering a P.C. with the step section technique and with routine autopsy examination.