Suppose that having passed these obstacles we enter the œsophagus. The bulb will inform us of the seat of the stricture, still inferior spasm must be mistrusted, it is evidenced by knots of contraction; by gentle insistance and maintaining the pressure the stomach is reached. The manœuvre is analogous to that employed in catheterization of the urethra. Unfortunately this spasm is very difficult to overcome, especially in women, and may for months and years simulate a true stricture.

Spasm plays a prominent rôle in œsophageal stricture. It is an element upon which we must always count; it exaggerates the degrees of stricture, it may mislead us to their number; it is due to pain. The seat of stricture is often difficult to appreciate. For this it is necessary to recollect the distance which separates the incisor teeth from the upper extremity of the œsophagus. The following measurements must always be borne in mind. The œsophagus has a length variable between 22 and 25 cm., and there are 15 cm. between the incisors and the upper part of the œsophagus. It is necessary then to penetrate from 38 to 39 cm. in order to surely enter the stomach.

Suppose the seat of the stricture is known, and we now wish to learn its calibre. Here also I must appeal to your knowledge of normal anatomy. What is the normal calibre of the œsophagus? It also is variable, but remember that its maximum diameter is 0.02 cm. A less diameter is compatible with excellent health. The symptoms of stricture begin when it is not more than 12 mm. When we wish to practice exploration a bulb 14 mm. in diameter is introduced, it ought to pass; if it experiences an obstruction there is a stricture, a smaller bulb is then tried until one succeeds in passing, the size of this bulb indicates the degree of stricture.

The notion of the length of the stricture is more difficult to acquire, it is an affair of sensation, and requires a skilled hand. The number of strictures will be marked by the number of jumps of the bulb, but you know already that spasms must be taken into account; multiple strictures are rare. The searchers were at first full bulbs screwed upon a flexible stem; they were introduced easily, but in withdrawing them the heel of the bulb always encountered the chanton of the cricoid arched against it and occasioned difficulty in withdrawal. So their form was modified, instead of olivary, the bulbs were flattened on their anterior face.

The great amelioration consists in rendering these bulbs capable of following a conductor; for this purpose the olivary bulbs were perforated in their long axes, and after having passed a whalebone, furnished at its extremity with a small flexible gum bougie (Verneuil-Colin's modification) the bulb is screwed upon a flexible handle with two eyelets; then the bulb was introduced on the bougie, which is in position, and which passes into the central hole of the olive, and in the eyelets of the handle on which it is screwed. Thanks to this artifice; very narrow strictures may be passed.

The treatment of these cicatricial strictures may be:—1. Dilatation, sudden or rapid. 2. Slow or progressive.

The first method is seldom employed except for the upper extremity, and when the stricture is of large calibre. It is a brutal operation. One acts blindly, and may give rise to peri-œsophagitis, and in certain cases produce death.

The second method is carried out with olivary instruments and bougies. In case of a stricture of four mm. we will pass an olive; the next day we increase its diameter; and so on little by little until the stricture is dilated.

These olivary bulbs have immense inconveniences; by their form they drag upon the mucous membrane, often causing it to bleed. On entering and returning they pass and repass with the same inconveniences; these repeated traumatisms may induce those ulcerations so frequently found at the level of the strictures. The olivary also augment the *culs-de-sac* in the neighbourhood. If one is not patient, and has not a skilled hand, one may even perforate the œsophagus in one of the dilatations where the wall is thinned by inflammation and softening of the tunics. So we have arrived after many trials at treating these strictures like those of the urethra, that is to say with bougies.

These bougies are of black gum, smooth and terminated by an olive as those of the urethra. They may be screwed to the extremity of a handle or of a whalebone stem, which serves to maintain them. Prof. Bouchard has especially advocated this method of treatment. The diameters of