A New Instrument for the Extraction of Non-Magnetic Foreign Bodies

J.G.F. Worst

University Eye Clinic, Groningen

The device is essentially an injection needle with a small forceps protruding from its tip. It has been called needle-forceps. The operating mechanism is incorporated in a pencil-like shaft. The forceps are opened by digital pressure perpendicular to the axis of the instrument, and close spontaneously. A continuous connection has been established between the dorsal end of the instrument and the forceps at the tip, by means of a steel capillary. Thus fluid can be expelled between the forceps.

Extraction from the anterior chamber is effected under continuous replacement of aqueous running out. A small incision is sufficient for introducing the instrument. As the refilling of the anterior chamber creates an optically appropriate and a dimensionally advantageous space, the often notoriously difficult operation of extracting a foreign body may be greatly facilitated by means of the needle-forceps.

For extraction of a foreign body, which is ophthalmoscopically visible in the posterior part of the eye, a special contact glass is used with satisfactory results preferably in conjunction with a head-lamp or an operating microscope. In the latter, ideal, case an enlarged, stereoscopic view of great depth of focus is obtained and little skill is needed to extract a foreign body. The two above-mentioned methods were tried on pigs’ eyes.

For the difficult problem of a foreign body, which is invisible because of traumatic cataract or its peripheral position, an experimental solution has been proposed. A scleral window inserted in the pars plana provides an astonishing view of the vitreous interior, of the posterior part of the lens and of the ciliary body. This scleral porthole, made of perspex, is inserted with a press-stud mechanism into a trephined scleral hole. The scleral lid is resutured afterwards with pre-set Lindner-Mendoza sutures.

The instruments are manufactured by Medische Instrumentmakerij van Imhoffstraat 3 Groningen. Acknowledgment is due to its instrument-maker K. Otter for his constructive ingeniousness.