

Punch Prostatectomy in Newcastle

William Wardill, a plastic and general surgeon in Newcastle upon Tyne, visited the Mayo clinic in 1937 together with Glasgow surgeon Tom Chapman. Impressed by what they saw of the Gershom Thompson cold punch resectoscope, both men returned home with one. Back in Glasgow, Chapman began carrying out punch prostatectomies in January 1938 and developed a special unit for this purpose at Hairmyres Hospital¹.

Returning to Newcastle, Wardill persuaded the city's medical officer, John Charles (later Sir John Charles, Chief Medical Officer) to open a new department at Newcastle General Hospital solely for prostatic surgery, described as unique in Great Britain, to evaluate the potential of the new instrument. It comprised an operating theatre with a special supply of sterilised water and two wards². The outcome was Wardill's 1941 seminal paper in the *Lancet*, that documented his experience with the first 230 consecutive cases. This demonstrated the superior safety and other benefits of the procedure, concluding:

*"Punch prostatectomy is the operation of choice for bladder-neck obstruction, whether due to cancer, prostatic hypertrophy or median bar"*³.

Most patients had been admitted with either acute or chronic retention, many of them with significant comorbidity and some considered unfit for open surgery. Some had infected urine and others bladder calculi that were crushed at the outset of the procedure.

"Cutting away of prostatic tissue is continued until the prostatic capsule is exposed and until there is no longer any prostatic tissue within reach ... an arbitrary time limit of 45 minutes is applied."

Up to 64 grams of tissue was resected. Compared with the previous experience of open trans-vesical prostatectomy, operative mortality was reduced considerably and average hospital stay reduced from 45 to 15 days².



Fenestrum showing cylindrical blade for resection

When Wardill retired in 1948, he was succeeded by John Swinney who, as a Rockefeller Fellow, had spent a year at the Mayo Clinic with Gershom Thompson, was accustomed to the cold punch and continued this practice on his return to Newcastle.

When the new Department of Urology was opened at Newcastle General Hospital in 1953, Swinney's design incorporated a special reservoir above the operating theatre to supply the large quantities of sterile water required for cystoscopy and endoscopic surgery. Swinney also modified the punch by the addition of a thumb-ring to enable single-handed resection that improved the efficiency and speed of resection thus permitting thorough TURPs of larger prostates and avoiding open surgery for most patients. Swinney thought nothing of resecting 70 – 80 grams of prostatic tissue and removed over 100 grams on at least one occasion.



Cold Punch 1960s -70s

When W Keith Yeates joined the consultant staff in 1952, he too used the punch until he retired in 1985, including during his Presidency of BAUS from 1980 to 1982. Clive Parker and Roger Hole, both having trained in Newcastle, also continued with the punch in Sunderland and Middlesbrough following consultant appointments, and until their retirement.



Swinney Thumb-ring

When I arrived in Newcastle as Senior Registrar in 1973, I was informed that:

“We do proper TURPs here, not just cutting an ‘English Channel’”.

I had to learn the skills required by the punch quickly!

Following my appointment as consultant, between 17 December 1974 and 25 March 1977, I performed 97 consecutive punch TURPs for benign or malignant prostatic outflow obstruction, the clinically assessed size of the prostate or the measured weight of resection ranging up to 65 grams. Several of these resections were re-resections for men who had undergone incomplete previous TURPs with the hot loop resectoscope elsewhere. No patient required a Millin’s or other open prostatectomy.

During this time the punch was also used for resecting bladder tumours, supplemented by the Gibb’s Big Ball diathermy cystoscope for tumours not accessible to the punch, being on the anterior and posterior walls of the bladder. The punches used were made by the Endoscopic Instrument Company, London, and later by Richard Wolf GmbH Kittlingen, who, in 1975, improved the illumination considerably by the addition of an external cold-light source on the recommendation of Professor Hubert Frohmuller of Wurzburg.

Following the transformational innovations of Hopkin’s solid-rod lenses, and an external cold-light source, it was the design of a continuous-flow, low pressure irrigation resectoscope by

Cuban born urologist Jose Iglesias⁴, first presented in 1975, that transformed the safety and surgical ease of transurethral resection of the prostate and bladder tumours.

In early April 1977, the “Iglesias” resectoscope manufactured by Rudolf Winter and Wolfgang Ibe (*Medizintechnische Werkstätten Winter & Ibe, Hamburg*) was offered to the Newcastle department for trial. Its advantages were obvious immediately. Equipped with the company’s own improved rod-lenses, diathermy and the facility for continuous, uninterrupted resection with safer, low-pressure irrigation, the Iglesias design rendered the punch, and other resectoscopes, obsolete.

Following my first TURP with the Winter & Ibe “Iglesias” resectoscope, I never used the punch again. However, transurethral resection of the prostate using the cold punch played a vital and major part in the management of male bladder outflow obstruction in the north-east of England for the previous 39 years.

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References

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4. Iglesias JJ, Sporer A, Gellman AC & Seebode JJ. New Iglesias Resectoscope with Continuous Irrigation, Simultaneous Suction and Low Intravesical Pressure. *J Urol.* 1975; 114: 929-933.
5. <https://urologichistory.museum/histories/people-in-urology/i/jose-iglesias>