

EDITORIAL



Filipe Caseiro Alves

Tive conhecimento há pouco tempo atrás que a técnica de Radiologia de Intervenção - embolização prostática no tratamento da hiperplasia benigna da próstata, teria sido alvo de críticas e contestação no seio da Ordem dos Médicos, por outras especialidades que não a Radiologia. A ser verdade, e estou em crer que não restam grandes dúvidas, é uma situação bizarra que não encontra precedentes similares na Medicina Moderna. Goste-se mais ou menos da técnica, o conhecimento em Medicina não pode nem deve ser feito com base em impressões pessoais ou na generalização de casos avulso que porventura apresentaram algum tipo de complicações. O conhecimento faz-se através da publicação de resultados depois de submetidos a arbitragem científica e pela posterior reprodução da técnica por outros investigadores com resultados similares. Como qualquer outro tipo de tratamento, a eficácia esperada não pode ser de 100%, nem a taxa de complicações possuir valores incomportáveis. Acontece que a embolização prostática nas situações de HBP tem satisfeito estas duas condições de tal forma que existe hoje um considerável corpo de opinião que a valida e a faz ser aceite como alternativa terapêutica pela comunidade científica.

Como noutros casos, a introdução de novos paradigmas em Medicina é sempre um processo moroso e que é visto inicialmente com relutância enquanto a solidez dos dados científicos disponíveis não permite essa mudança mais ou menos radical.

No artigo de opinião deste número da ARP optámos por reproduzir na íntegra a posição da Sociedade Científica porventura mais habilitada para o fazer neste domínio particular - o CIRSE (Cardiovascular and Interventional Radiological Society of Europe) e que o faz precisamente no sentido de explicitar a situação actual da técnica, o conhecimento que foi produzido e o que falta alcançar. É um documento rigoroso, cientificamente abrangente e honesto que vale a pena ler antes de formar qualquer opinião.

A Medicina, ciência exacta (ou semi-exacta em muitas situações) vive precisamente do oposto do dogmatismo. A investigação, a curiosidade e a confrontação científica são os elementos chave para o progresso das ciências médicas. Assim se faz o conhecimento.

Artigo de opinião / Opinion article

Upon your request, we are writing to express the Cardiovascular and Interventional Society of Europe's (CIRSE) opinion on the procedure of prostatic artery embolisation.

Since prostatic artery embolisation was first performed in 2008, this therapy has met with substantial clinical success in patients. Studies continue to demonstrate the benefits this procedure has for patients suffering from benign prostatic

I learned not long ago that the Interventional Radiology technique - prostatic embolization in the treatment of benign prostatic hyperplasia, might have been subject to criticism and contestation within the Medical Association by other than the radiology specialties. If this is true, and I believe that there are no serious doubts, it is a bizarre situation which has no similar precedent in Modern Medicine. Whether you like this technique more or less, medical knowledge cannot and should not be based on personal impressions or on the generalization of separate cases that perhaps presented some kind of complication. Knowledge is spread through the publication of results after undergoing scientific arbitration and after the technique reproduction by other researchers with similar results. As with any other kind of treatment, the expected effectiveness cannot be 100%, nor can the complication rate have unbearable values. It turns out that the prostate embolization in cases of BPH has satisfied these two conditions to such extent that there is now a considerable body of opinion that validates it and is being accepted as an alternative therapy by the scientific community.

As in other cases, the introduction of new paradigms in Medicine is always a slow process and is seen initially with reluctance while the strength of the available scientific data does not allow that change more or less radical.

In the opinion article of this ARP issue we have chosen to reproduce in full the position of the Scientific Society perhaps more entitled to do so in this particular field - CIRSE (Cardiovascular and Interventional Radiological Society of Europe) and that is precisely in order to clarify the current situation of the technique, the knowledge that was produced and what remains to be achieved. It is a rigorous document, scientifically comprehensive and honest, worth reading before forming an opinion.

Medicine, an exact science (or semi-exact in many situations), lives precisely from the opposite of dogmatism. Research, curiosity and scientific confrontation are the key elements to the progress of medical science. Thus knowledge is generated.

hyperplasia (BPH), and many trials have proved the significant positive changes in patients' urodynamic characteristics, including the International Prostate Symptom Score (IPSS), the maximal flow rate (Qmax), the International Index of Erectile Dysfunction (IIEF) and prostate volume (PV).

One such fundamental study was Prof. F. Carnevale's 2015 prospective, randomised trial of 30 patients, comparing

transurethral resection of the prostate (TURP) with original and PErFecTED PAE. While both TURP and PErFecTED PAE were determined to yield similar symptom improvement, TURP achieved slightly better urodynamic results, but was also associated with more adverse events than PAE (1).

This PErFecTED technique was used in Dr. G. Amouyal's 2013-2015 study of 32 patients that showed this PAE technique to be safe and efficient in treating lower urinary tract symptoms (LUTS) related to BPH, as outcomes revealed 100% technical success, and 78% overall clinical success (2).

In the first large series study published by Prof. J. Pisco in 2013, PAE was performed in 89 patients with a short-term clinical success rate of 78% at 6-month follow-up, and an average IPSS decrease of 13.1 points by 12-month follow-up, along with no loss of sexual function in patients (3).

In the most recent publication by Prof. Pisco of a single-centre retrospective cohort study of patients with moderate to severe LUTS, PAE was performed in 152 patients with a clinical success rate of 77.8% at 18 months and 72.4% thereafter to 66 months (4).

The ongoing UK-Registry of Prostate Embolisation (ROPE), which is analysing the efficacy and safety of PAE, also promises satisfactory results. As of September 2015, the registry had recruited 187 patients, out of which 128 received PAE with positive effects. The results from the University Hospital Southampton, showed an average decrease of 12 points in IPSS at three-month follow-up of PAE patients (5). These are just a few of the many studies which have been conducted on PAE and have been published or anticipate

optimistic outcomes. More research in the form of registries or clinical trials is needed to gather further data on this procedure, but, the overwhelming positive results so far indicate that PAE should continue to be performed with multidisciplinary collaboration within trials and registries to further define the role of PAE in patients with BPH.

It is essential that multidisciplinary collaboration be embraced between urologists, diagnostic radiologists and interventional radiologists in order to determine the most appropriate indications for this procedure and to achieve the best results. Although this procedure is unlikely to replace medical therapy, many urologists believe that it is a beneficial option for select patients. Brazilian urologist Dr. A. Antunes stated that advantages of PAE include: 1.) It is an outpatient procedure, 2.) It is performed under local anaesthesia, 3.) It has a low complication rate, and 4.) It does not produce retrograde ejaculation or early urinary incontinence (6). Interdisciplinary cooperation is necessary to ensure patients receive the ideal treatment for their specific circumstances.

We hope this will assist in the effort to clarify the validity and value of the prostatic artery embolisation procedure and ensure that all perspectives be carefully and fully considered in the discussion surrounding its continuation in Portugal.

If questions remain that we may be of any assistance in answering, we would be happy to offer further support on this matter.

Elias Brontzos, MD PhD
CIRSE President

References

1. Carnevale F, Iscaife A, Yoshinaga E, Moreira A, Antunes A, Srougi M. Transurethral resection of the prostate (TURP) versus original and PErFecTED prostate artery embolization (PAE) due to benign prostatic hyperplasia (BPH): preliminary results of a single center, prospective, urodynamic-controlled analysis. *Cardiovasc Intervent Radiol.* 2016;39(1):44-52.
2. Amouyal G, Thiounn N, Pellerin O, Yen-Ting L, Del Giudice C, Dean C, et al. Clinical results after prostatic artery embolization using the PErFecTED technique: a single-center study. *Cardiovasc Intervent Radiol.* 2016;39(3):367-75.
3. Pisco JM, Rio Tinto H, Pinheiro LC, Bilhim T, Duarte M, Fernandes L, et al. Embolisation of prostatic arteries as treatment of moderate to severe

lower urinary symptoms (LUTS) secondary to benign hyperplasia: results of short- and mid-term follow-up. *Eur Radiol.* 2013;23(9):2561-72.

4. Pisco JM, Bilhim T, Pinheiro LC, Fernandes L, Pereira J, Costa NV, Duarte M, et al. Prostate embolization as an alternative to open surgery in patients with large prostate and moderate to severe lower urinary tract symptoms. *J Vasc Interv Radiol.* 2016;27(5):700-8.

5. Hacking N. (2015, Sept. 29). Current evidence on prostate artery embolisation [Webcast]. CIRSE 2015. Retrieved from www.esir.org.

6. Antunes A. (2013, Sept. 15). PAE: the urologist's perspective [Webcast]. CIRSE 2013. Retrieved from www.esir.org by Prof. Carnevale.