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Uterine Fibroid Embolisation - An alternative to surgery

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Background Information

The aim of this technique is to block the arteries feeding the fibroids by injecting particles of biologically inert embolus, the size of a grain of sand. The fibroids, no longer receiving oxygen and with the supply of nutrients cut off, progressively dry up and decrease in volume over the ensuing months.

Effecting more than one in three women over the age of 35, uterine fibroids are the most common benign tumours (non cancerous) found in women. Uterine fibroids can have serious repercussions on an individual's quality of life. The cause of pain and heavy periods, they can even give rise to anaemia. Uterine fibroids require therapeutic treatment once they become a problem.

Originally advocated for inoperable cancer and serious haemorrhage following childbirth, uterine embolisation avoids the removal of the uterus, retaining the hormonal cycle and requires less recovery time than the traditional hysterectomy.

Introduced in France in the early 1990's at the Lariboisière Hospital in Paris by the gynaecology and radiology teams, uterine fibroid embolisation is a less invasive technique than a myomectomy (surgical removal of the fibroid) or a hysterectomy. Better control of any pain which can occur after embolisation, along with a reduced hospital stay, gives those patients treated by uterine embolisation a quality of life unequalled by other therapeutic alternatives.

Uterine embolisation requires a multi-disciplinary approach to treating the fibroid, with radiological and gynaecological input necessary. It has a high success rate. Minimally invasive and less disabling, this technique benefits from the fact that almost 60,000 procedures have been carried out worldwide.

A step by step guide

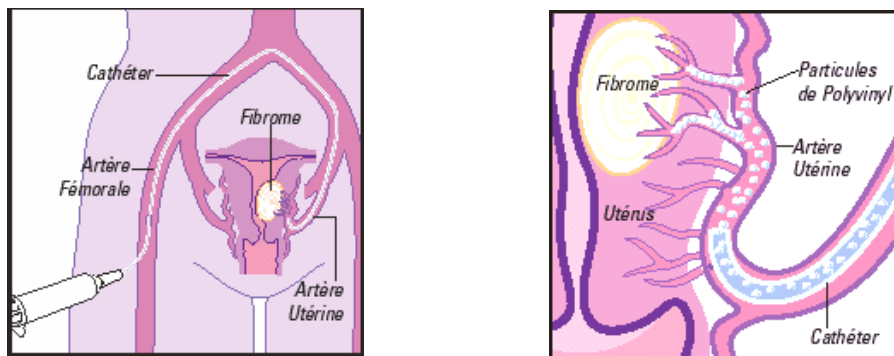
Embolisation is generally carried out under local anaesthetic. The patient is given a mild sedative, with a general anaesthetic is rarely necessary.

To carry out an embolisation of uterine arteries, a small incision is made in the groin under local anaesthetic and a catheter is inserted in the artery of the groin, then directed using x-ray guidance towards the blood vessels which feed the uterine fibroid. Once the catheter reaches the artery which provides the uterus with blood, the embolisation particles are carefully injected.

The particles of embolisation start to accumulate until the blood flow to the fibroids is cut off. These particles wedge in the vessels and cannot travel to other parts of the body. The radiologist keeps a close eye on the procedure following the course of the particles with the help of x-ray. The arteries

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supplying the fibroids originating from the right and left uterine arteries are embolised one after the other. The intervention lasts approximately one hour. This procedure only exposes the patient to very small amounts of radiation, therefore there is no risk of side effects or long term consequences.



Injection of micro-particles measured at the level of the fibroids

Results

Embolisation leaves the uterus intact and allows the feed supply to all fibroids to be obstructed, regardless of the amount or where they are located, thereby limiting the risk of recurrence.

Clinical studies carried out on a large number of women comparing embolisation with conventional surgery show that uterine embolisation offers a better therapeutic option (no general anaesthetic, no risk of haemorrhage, no surgical incision, shorter hospital stay, speedy recovery period) and at a lower cost than that of a myomectomy or a hysterectomy.

These clinical studies showed the following benefits of embolisation:

- periods became normal in more than 85% of cases
- a reduction of approximately 45% in the size of the uterus
- an existing failure rate of 5-10%
- serious risks of the procedure are less than those related to conventional surgery
- fertility is retained after embolisation, even if the majority of women treated no longer wish to become pregnant
- more than 90% of patients declared themselves satisfied with the outcome and would recommend embolisation to other women.

Today, embolisation of uterine arteries is a real alternative to a hysterectomy and multiple myomectomy. It enables the uterus to remain, keeps the hormonal cycle and allows a shorter recovery period than either of the alternatives. The improvement in post-embolisation pain relief, along with the shorter hospital stay, gives those patients treated by uterine embolisation a better quality of life than for other therapeutic options.

The health authority has formally recognised the advantages of this technique and has issued recommendations, one of which is for the CNAM – it recommends the establishment of a separate classification for uterine fibroid embolisation.

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In the U.S. the American College of Obstetricians and Gynaecologists (ACOG) has also issued new recommendations in 2004 favouring this technique and its indication. In France, the jury is still out.

Future prospects

The number of embolisations is increasing yearly. Criticism of this technique is falling.

One of the future options is to determine the possibility of successfully giving birth after a uterine fibroid embolisation. This is one of the questions that the European register established by CIRSE in 2004 is looking into. 1,000 patients will be registered over a duration of two years, with a follow-up period of three years. This study will provide a long term follow-up of patients. A participating form is available to practitioners on the Internet.

In the U.S., a register has already been compiled over a two year period with 2,500 patients. The results are currently being published.

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More information at www.cirse.org

A press conference, in French language, will be held in Paris, on Tuesday 6th September at 11.00 a.m. at MEDIAL, 11 rue Lincoln, 75008 Paris

A press conference, in English language, will be held in Nice, on Saturday 10th September at a.m. at the Acropolis Congress Centre in Nice

For press registration and further information, please contact MEDIAL

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