Prospective Randomized Evaluation of the Watchman Left Atrial Appendage Closure Device in Patients With Atrial Fibrillation Versus Long-Term Warfarin Therapy - The Prevail Trial

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Atrial fibrillation (AF) is the most common type of arrhythmia affecting 800,000 people in the UK. One of the most serious complications of AF is that it results in a fivefold increase in the risk of stroke. 90% of the cases of stroke secondary to AF was a result of a clot forming in the left atrial appendage which then embolisms and forms a clot in the blood vessels supplying the brain. This then blocks off the blood supply to the brain leading to a stroke.

Anticoagulants such as warfarin is currently being used to minimise the risk of stroke in patients with AF. However, there are several side effects that are a result of its long term use. This includes internal bleeding, patients' compliance, drug-drug interactions and the need to constantly monitor levels in blood. This has resulted in compliance issues resulting in only 50% of eligible patients actually taking warfarin in an attempt to prevent the risk of stroke. In order to avoid these side effects and since the most common site of blood clots resulting in stroke is the left atrial appendage, blocking it is a valid alternative.

A similar trial (Protect Trial) has been carried out previously. Results of that trial showed that at the 45 months follow up, the device was superior to warfarin due to its long term side effects. This highlighted the fact that unwanted side effects could be avoided with mechanical intervention, but more data is required. There was also early safety risk issues in the previous trial, such as procedural stroke related air embolism, so extra safety measures were taken in this trial.

The patients selected for the Prevail trial were at a higher risk of stroke, compared to previous trials. More patients in this trial were over the age of 75 and had diabetes mellitus or a previous incidence of stroke. This trial used similar guidelines to the previous Protect trial in terms of assessing the risk of developing stroke after undergoing either of these interventions.

It was important that this trial was carried out in order to improve the results previously obtained comparing warfarin therapy to LAA occlusion. In addition, the trial design had to be modified to ensure the safety of the participants, therefore the endpoints were redefined.

Biography

Djouhar Belgaid has completed her third year in Medicine at Barts and the London School of Medicine, achieving merits in her studies. She is undertaking an Intercalated Bachelor of Medical Science (BMedSci) Degree in Molecular Therapeutics at the renowned William Harvey Research Institute in the upcoming year to further her interest and experience in research.

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