A new generation of implant

DR NERINA WILKINSON reports on the latest innovation in silicone breast implants: **progressive gel technology.**

Breast augmentation surgery remains the most common plastic surgery procedure to date. We all understand the importance of selecting a qualified, specialist plastic surgeon and reputable, licensed clinic. However, most patients don't realise that the choice of breast implant is a very important decision – perhaps even more important than the surgeon or the clinic. As a patient, you have a vital role in selecting the correct implant you will be 'wearing' for years to come.

Why new progressive silicone?

With the number of women choosing breast augmentation surgery increasing every year, it only made sense for implant manufacturers to invest heavily in research and development to deliver safer implants with a more natural feel. In order to achieve this, major changes were made to the implant shell, the silicone gel and the safety, making way for a more 'progressive' silicone implant.

Concern arising from previous silicone breast technology

Breast shape is extremely important in the aesthetics of breast augmentation surgery. Over the years, we have moved away from the false, round implants to the more naturally shaped, anatomic breast implants. The downside to these implants, however, was that while they delivered on the 'natural look', the gel felt hard to the touch (due to its cohesivity) and did not move like a natural breast. In addition, anatomically shaped breast implants may rotate after implantation.

There have also been reports worldwide of an extremely rare condition associated with implants that are manufactured with aggressive texturing, called BIA-ALCL (breast implant associated anaplastic large cell lymphoma). Aggressive texturing was introduced to minimise capsular contracture (i.e. hardening of the breasts) and to prevent anatomically shaped breast implants from rotating. Yet there are studies that link texturing to the formation of biofilm around an implant. This could, in very rare occasions, lead to the development of ALCL.

How progressive gel implants improve outcome

To achieve the natural shape of an anatomically shaped implant (while retaining the soft feel), progressive gel implants incorporate the following technology that mimics the breast dynamics: TrueTissue Technology™. This is a combination of a specific elastic elastomer shell, with the special rheological properties of ProgressiveGel Ultima™. While these implants are round, due to the progressive gel technology, they actually ergonomically adapt to the shape after implantation. The shape of the implants therefore constantly changes alongside the position of the breast. So, while the patient is standing, the maximum point of projection shifts to the lower pole, and when the patient lies down, the projection point moves to the center – similar to the movement of a natural breast.

Moreover, these implants do not need the aggressive texturing to prevent rotation, as they are not anatomically shaped. In fact, the new progressive gel combined with their NanoSurface Technology (nano texturing) on the shell, results in much lower rates of biofilm formation. This leads to lower capsular contracture rates and a much reduced chance of developing BIA-ALCL.

Take-home message

Even though progressive gel implants are new to South Africa, they have been used in Europe for more than 10 years by a selected group of experienced plastic surgeons. There is currently no set of numbers available to prove that they are superior to other prostheses currently on the market, but what we do know is that they mimic the natural behaviour of the breasts – thereby giving patients a natural-looking breast that also feels natural. **A2**

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