Female ejaculation comes in two forms, scientists find

18/05/2015

Researchers have now come a step closer to defining this controversial phenomenon, by performing the first ultrasound scans on women who express large amounts of liquid at orgasm.

Some women express liquid from their urethra when they climax. For some, this consists of a small amount of milky white fluid – this, technically, is the female ejaculate. Other women report "squirting" a much larger amount of fluid - enough to make it look like they've wet the bed.

A few small studies have suggested the milky white fluid comes from Skene glands - tiny structures that drain into the urethra. Some in the medical community believe these glands are akin to the male prostate, although their size and shape differ greatly between women and their exact function is unknown.

Climax in the lab

To investigate the nature and origins of the fluid, Samuel Salama, a gynaecologist at the Parly II private hospital in Le Chesnay, France, and his colleagues recruited seven women who report producing large amounts of liquid - comparable to a glass of water - at orgasm.

First, these women were asked to provide a urine sample. An ultrasound scan of their pelvis confirmed that their bladder was completely empty. The women then stimulated themselves

through masturbation or with a partner until they were close to having an orgasm - which took between 25 and 60 minutes.

A second pelvic ultrasound was then performed just before the women climaxed. At the point of orgasm, the squirted fluid was collected in a bag and a final pelvic scan performed.

Even though the women had urinated just before stimulation began, the second scan - performed just before they climaxed - showed that their bladder had completely refilled. Each woman's final scan showed an empty bladder, meaning the liquid squirted at orgasm almost certainly originated from the bladder.

A chemical analysis was performed on all of the fluid samples. Two women showed no difference between the chemicals present in their urine and the fluid squirted at orgasm.

The other five women had a small amount of prostatic-specific antigen (PSA) present in their squirted fluid - an enzyme not detected in their initial urine sample, but which is part of the "true" female ejaculate

PSA, produced in men by the prostate gland, is more commonly associated with male ejaculate, where its presence helps sperm to swim. In females, says Salama, PSA is produced mainly by the Skene glands.

Beverley Whipple, a neurophysiologist from Rutgers University in Newark, New Jersey, says that the term female ejaculation should only really refer to the production of the small amount of milky white liquid at orgasm and not the "squirting" investigated in this paper. "This study shows the other two kinds of fluids that can be expelled from the female urethra - urine alone, and urine diluted with substances from the female prostate," she says.

"This study presents convincing evidence that squirting in women is chemically similar to urine, and also contains small amounts of PSA that is present in men's and women's true ejaculate," says Barry Komisaruk, also at Rutgers.

"This study helps to reconcile the controversy over the fluids that many women report being released at orgasm," he adds. "There are evidently two different fluids, with two different sources. Whether either of these fluids plays a physiological role - that is, whether they serve any adaptive function, is not known."

Florian Wimpissinger at Rudolfstiftung Hospital in Vienna, Austria, suggests that the presence of PSA in some women's squirted fluid and not others might be because the emissions from the Skene glands could travel into the bladder at orgasm. It may also have something to do with the known variation in size and shape of the glands, or be that some women don't produce PSA in the first place.

Every woman capable

Why some women experience these different types of ejaculation and others don't is not yet clear, says Salama, but he believes every woman is capable of squirting "if their partner knows what they are doing".

For now, Salama is not investigating that particular avenue, but instead working on a protocol to test whether the kidneys work faster to produce urine during sexual stimulation than at other

times, and if so, why.

The ban on female ejaculation in UK porn is based on the fact that the British Board of Film Classification (BBFC) considers films which include material featuring "urolagnia" - sexual pleasure associated with urination - as obscene under the UK Obscene Publications Act.

However, the wording of the law actually appears to be referring to squirting - not female ejaculation. So this new paper may support the current legal position, since it shows it is essentially involuntary urination. Presumably, under current UK law, if a woman were to have what is considered a true female ejaculation - the expulsion of a small amount of milky white fluid - and the BBFC were satisfied that this did not contain urea - this act would not be subject to the ban.