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by B J

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Testosterone and Women in Sports

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Testosterone and Women in Sports

Based on the article, women have testosterone in their bodies. Most men have XY chromosomes and testes that grow in infancy and produce relatively substantial testosterone levels into their blood system later in life. On the other hand, most females have XX chromosomes, which cause ovaries to produce less testosterone and lower estrogen levels. In addition to that, some categories of women have XY chromosomes despite having female anatomy, leading to significant testosterone production. Therefore, in this perspective, it is correct to conclude that women have testosterone in their bodies.

Testosterone levels differ significantly amongst males and females, with young males' levels ranging from 10 to 40 nmo/L of blood and female concentrations ranging from 0.5 to 3 nmol/L. The word "tend" has been extensively used in the article, suggesting an inclination towards a specific direction (The Editors, August 2016). This case suggests a solid relationship between high levels of testosterone in women and track performance. In addition to that, the article highlights the issue of natural and synthetic testosterone. In most cases, the human body produces testosterone naturally. Also, some athletes use synthetic testosterone to alter the functioning of their bodies. Regardless, if both the synthetic and naturally occurring testosterone had similar outcomes, male athletes would have a clear advantage since their bodies produce significant amounts of testosterone compared to female athletes. Also, many women targeted by the world athletics body, like Semenya, have the XY chromosome, and their anatomy does not respond to androgens like most XY persons. Such complexity makes it challenging to understand the impact of testosterone, whether synthetic or natural, on their anatomy and performance.

Moreover, a type I error happens whenever a null hypothesis is rejected during the evaluation process, although it is correct and should not be rejected. A null is constructed before

the start of a test in testing hypotheses. Type I errors are what these false positives are referred to as. In anatomy, men have the XX chromosomes, but women have the XY, which enhances the growth of ovaries producing limited amounts of testosterone. However, as per InterAct findings, 1.7% of the society can be intersex based on their chromosome composition without noticing (The Editors, August 2016). Such variances make it difficult to determine the expected levels of testosterone in both female and male bodies, significantly where the female levels of testosterone overlap that of men. In this regard, the article identifies the type 1error by adopting a procedure termed correcting for multiple comparisons. This statistical approach considers the probability of establishing a false positive in many statistical investigations instead of a single one. The type 1 error occurred when the effects of testosterone levels on performance failed to manifest in research.

In my opinion, tall players should not be banned from the NBA league. Biology has presented a firm basis for understanding the nature and characteristics of human anatomy. In this regard, it should not be used to divide athletes into different categories because it is intrinsically unfair. Sports bring people together, athletes are inspirations to many, and above all, they did not choose to be born as females, males, intersex, short, or tall. Provided that these athletes do not use synthetic substances to enhance their performance in sports, they should be allowed to compete at the highest levels.

To sum it up, whereas biology has helped the world understand how testosterone affects the human body, it also helps understand why the human race is diverse. Nonetheless, as suggested in the article, research is still needed because the findings are inconclusive. Science frequently discovers more mystery than it answers, especially in an area as complex and contentious as gender identity. Moreover, suppose science fails to shed light on the subject of

intersex women athletes. In that case, we can always return to the ideals of diversity, inclusiveness, and tolerance that make top female sports so special.

Reference

The Editors. (August 2016). Olympic Officials Should Tell Women "High T" Is No Hurdle. scientificamerican.com/magazine/sa

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