Twitter Thread by ■ Alex ■

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In this thread I'll be going into specifics on my argument of how women born with Complete Androgen Insensitivity Syndrome are intersex females and not intersex males. I'll be using the five factors of sex determination which I went into in this

> Another thread so soon? This one's going to be about a classic argument, sex determination. There are five methods of sex determination and I'm going to go into depth on my arguments on why I state that sex is able to be determined in all cases. #intersex
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> — \U0001f98e Alex \U0001f6ab (@AlexAlicit) January 10, 2021

To start with the the way the five factors work is that together they add up to one of the two results, I think this is a safe estimate given the casing of Hayley Haynes.. which can be backed up by a few other findings where uterine tissue was discovered:
https://t.co/PltaQEOWfX

There was an official statement made that determined the current ongoing issues with uterus transplants being an issue in AIS women having nothing to do with their Y chromosome which currently people use chromosomes to argue genotype, or genetics.
https://t.co/QE2KKEeJ1U

Let's start then, with the first and most simple of factors. Karyotype.

In those born with CAIS they are born with a 46 XY karyotype with a SRY gene on the Y chromosome. However there is a mutation in the primary X chromosome that leads to not being able to process androgens.

This in turn leads to testicular feminization caused by a mutation in the X chromosome that leads to the body resisting, or not being effected by androgens produced in the body. We'll go more into that later.

Karyotype: Male Typical 46 XY[SRY]

Factor 2: External genitalia - Which in CAIS cases are always clitoris and vagina. There's never any kind of virilization, no male typical genitalia whatsoever. The vaginas are usually blind as there is no mullerian structures to reach. That said, this comes out as female typical

The third factor is gonads, this is the dicey one. People argue technically that due to the fact we're talking internal testicles that this is male by default. In normal cases you'd be correct - These internal testicles cannot function as normal testicles in a CAIS body.

A CAIS body is essentially rejecting what goes down typically in a male body. Meaning that not only can these internal testicles not produce sperm, but their androgens are also being handled in a unique manner: Which again, we'll go into later.

In conclusion for factor number two, we have testicles that are inside the body and can even become cancerous although at a low risk that cannot produce viable sperm. This means there is no gamete being produced, and no chance of extraction.

In short: Null. Not a factor.

Moving onto factor four, hormonal profile or endocrine profile. The best way to describe this factor is that male bodies and female bodies have specific averages of sex hormones they require to function. Now with CAIS this is a very interesting argument especially if no IGM.

So CAIS bodies do produce the normal levels of androgens but an interesting process happens. There's a process known as aromatase and this is a process where excess androgens that the body cannot process get converted into estradiol. So even if the testicles are not extracted..

A CAIS youth will still undergo female-typical puberty. This is one of my strongest case arguments for why I consider CAIS to be a sex reversal female case, due to the process of aromatase and it happens naturally at that.

So with that, we can safely put the hormone profile factor as female thanks to the process of aromatase.

Last but not least: Reproductive structures is the very last factor and due to the fact the AMH or Anti-Mullerian Hormone is active in a CAIS body, this means that in utero the structures never get a chance to develop - HOWEVER there are exceptions.

Like in the two cases I named above, these were women or in some cases even girls who were found to have uterine tissue or other relevant mullerian structures, sometimes capable of it even being matured to be mostly functional. That said they do not have ovaries.

So in this case your typical CAIS case is a factor of null on the final determination factor, due to no reproductive structures being present. No Wolffian, No Mullerian, no uterus, nothing.

So let's put everything together
1- Karyotype: 46 XY SRY Activated [M]
2- External genitalia is female typical [F]
3- Gonads are non-functional, internal testicles [Null]
4- Hormone profile due to aromatase is female typical [F]
5- Reproductive structures are non-existent. [Null]

By factoring all of these together, you have a female case, although it is a close and debatable call due to there being two "null" factors. However keep in mind there are cases of CAIS, where that final factor is female leaning due to uterine or mullerian tissue.

This thread isn't about PAIS, but I'll make this argument. The moment aromatase basically stops being a thing or enough of a thing to make a difference is where the factor shifts to another null, or male. When that happens, AIS is no longer a sex reversal case.

Hopefully I put my argument in a clear enough format to understand. I know Twitter's format can be a chore sometimes but I figured, especially with all this gender stuff going on that I'd argue for the women with this particular CCSD who are often being used as an argument.