

FAS, FASD: DIAGNOSIS AND MYTHS

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ABSTRACT

The myth that fetal alcohol syndrome (FAS) is the most severe form of fetal alcohol spectrum disorder (FASD) causes confusion and erroneous conclusions. It is not just a matter of semantics. In a recent appeal case the expert witness for the crown stated that the appellant was not severely affected since he did not have the facial features. When such an erroneous statement is accepted as fact and incorporated into the legal system it becomes an obstruction in the pursuit of justice.

Key Words: *Fetal Alcohol Syndrome, Fetal Alcohol Spectrum Disorder, Alcohol Related Neurodevelopmental Disorder, diagnosis phenotypes, I.Q., facial features, expert witness*

“Diagnosis, the Heart of the Medical Art Diagnosis is the heart of the medical art; it is what separates medicine as a definite, rational science from medical magic and superstition. Diagnosis is also the central, golden link in the chain of medical knowledge that brings together all its theoretical aspects to provide the practical key to treatment. Diagnosis, to be accurate and sound, must be built upon a broad yet definite base of knowledge regarding all aspects of human anatomy, physiology and pathology.”¹

Whether or not a condition can be designated as a diagnosis is not determined by its complexity. Fetal alcohol spectrum disorder (FASD) is a complex condition. Its complexity is due to the degree and variability of the developing brain’s reaction to alcohol exposure. As in other medical conditions, we are far from completely understanding all the affects of prenatal alcohol exposure.

Nevertheless much is known including gross and microscopic neuroanatomy, neurophysiology and biochemistry, sensory and motor function and all the clinical signs and symptoms that result from these aspects of the pathology of FASD²⁻³ Phenotype and Diagnosis are not synonymous. The fact that FASD has many phenotypes does not exclude it as a diagnosis.⁴ Not understanding this has encouraged myths about fetal alcohol syndrome.

It is a myth that FAS is the most severe/worst form of FASD. The most that can be said is that some with FAS may be the most neurologically affected [27%].

These are the facts²⁻³:

1. Only 10%-15% of those diagnosed with FASD will have the facial features [FAS].
2. Only approximately 27% of individuals with the facial features [FAS] will have an I.Q. below 70.
3. Of the remaining 73% of those with the facial features [FAS] the range of I.Q. will vary from the low to high average.
4. Of those who do not have the facial features [alcohol related neurodevelopmental disorder-ARND] 9% will have an I.Q. below 70.
5. Of those diagnosed FASD, 18% will have an I.Q. 70 or less.
6. All those diagnosed FASD [FAS and ARND] will have degrees and combinations of impairment of the various domains of brain function, as demonstrated in the neurological assessments used in the process of the diagnosis.
7. While the I.Q. is a measure of the individual's overall intellect it is not a measure of the individual's ability to function in society; for this brain function needs to be assessed separately. In particular, Executive and

adaptive functioning appear to be universally impaired in FASD [FAS and ARND], no matter the level of I.Q. all domains of (FAS).

8. In FASD the relevance of the I.Q. decreases the higher the value. Clearly, at 70 or less it is highly relevant since all, or most, of the domains of brain function are compromised. As the domains of brain function are less affected, but still enough to meet the requirements for the diagnosis of FASD, the overall I.Q. is less. In these circumstances it is the compromised Executive and Adaptive Functioning that assume great significance.
9. The degree of functional impairment can only be assessed by neuropsychological testing, not be the presence or absence of facial features.

The myth that FAS is the most severe form of FASD causes confusion and erroneous conclusions. It is not just a matter of semantics. In a recent appeal case the expert witness for the crown stated that the appellant was not severely affected since he did not have the facial features.⁵ When such an erroneous statement is accepted as fact and incorporated into the legal system it becomes an obstruction in the pursuit of justice.

In certain peripheral communities, where the incidence of severe exposure to prenatal alcohol is high, the percentage of individuals with FAS, and the percentage with an I.Q. of 70 or less, may be higher. In such situations the percentage of individuals diagnosed FASD who have an I.Q. of 70 or less will also be higher.

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