Alcohol abuse among many contemporary women of the childbearing age is a major but still preventable cause of the majority of the birth defects and developmental disabilities cases in many countries. (Hoyme HE, May PA, Kalberg WO, Kodituwakku P, Gossage JP, Trujillo PM, Buckley DG, Miller JH, Aragon AS, Khaole N, Viljoen DL, Jones KL, Robinson LK., 2005)

Fetal alcohol syndrome (FAS) is a combination of a number of certain mental and physical defects and disorders that a fetus can have and that will gradually be developed during the pregnancy period of a woman. These disorders and defects appear and develop in case a woman drinks alcohol during her pregnancy period. The frequency of the alcohol consumption is the most essential and major factor that can influences the probability of the fetal alcohol syndrome developing process.

Although it is strongly recommended not to drink alcohol during the pregnancy period, still many women break this rule and necessity. Many women reduce their alcohol consumption but still even a little dose of this liquid can lead to certain disorders and damages in the organism of the new-born child. As a result a child is born that will have certain mental or physical defects for the entire life.

All these findings and discoveries make the need for effective prevention strategies for pregnant women or for women who are only planning their pregnancy quite urgent. (Hoyme HE, May PA, Kalberg WO, Kodituwakku P, Gossage JP, Trujillo PM, Buckley DG, Miller JH, Aragon AS, Khaole N, Viljoen DL, Jones KL, Robinson LK., 2005)

#### **Cause and Prevention**

The excessive drinking of alcohol is the main reason of the fetal alcohol syndrome. However, even small doses of alcohol can lead to certain defects and disorders in the organism of the fetus. That is why it is impossible to say what amount of alcohol is considered to be safe for a pregnant woman. It is recommended not to drink alcohol at all during the pregnancy period. The best prevention of the fetal alcohol syndrome is not to drink alcohol even during the period when the woman might get pregnant. That is why in case you are planning to have a child be absolutely serious concerning this matter.

The main consequences of the excessive drinking of alcohol are connected with the serious problems with the behavior and the learning process of a child.

# **Signs and Symptoms**

It is essential to notice even the smallest signs and symptoms of the fetal alcohol syndrome in time. The whole range of the possible affects on the mental or physical activity of the child is quite wide. There can be both mild and severe disorders in the organism of a small child.

In order to be one hundred percent sure that your child is healthy and that it does not have FAS, it is recommended to check if the child has any of the mentioned symptoms.

First of all, a child that has FAS may have an extremely low birth weight. Moreover, if there are any signs of the development delay it may also be quite serious and it may be a sign of the FAS. As for the physical activity of the child there may also be certain problems with the motor skills and coordination. One more symptom can be the dysfunction of some of the organs and certain facial abnormalities such as small eye opening or very flattened cheekbones.

The child with FAS may also have epilepsy. A special retrospective chart review was performed in order to find out how many children with FAS have this symptom. In result it was found out that nearly 5.9% of people having FAS suffer from epilepsy. (Bell SH, Stade B, Reynolds JN, Rasmussen C, Andrew G, Hwang PA, Carlen PL., 2010)

According to these researches epilepsy is considered to be one of the most serious problems for people having FAS. And this fact led to the necessity to develop special treatment for these people.

Except the physical disorders there can be certain mental disorders that a child has. First of all, a child with FAS may have extremely poor socialization skills. Such a child can come across a certain difficulty with getting acquainted with new people and building friendship. The fetal alcohol syndrome can also cause the lack of imagination and low curiosity. However, these qualities are especially important for every child during the growing-up period.

The disorders caused by FAS can also lead to learning difficulties. These problems will become really urgent during the process of education in school and in the university. Moreover, it will be extremely difficult for this child to understand such concepts as time, money or some other similar things. Extra efforts will be required in order to develop the problem-solving skills of the child with FAS properly. It is important to use special methodology and teaching theories in order to help this child to acquire necessary knowledge and skills. Moreover, children with FAS are rather hyperactive and it is difficult for them to concentrate.

## Diagnosis of the fetal alcohol syndrome (FAS)

FASD is quite different from most of the existing genetic syndromes since there is no specific diagnostic biological test available right now. It is required to have the diagnosis suspected first and a special diagnostic assessment is also important. Due to the recent researches it is recommended to carry out all the diagnosis and assessments in the context of the multi-disciplinary and quite diverse team approach. (Chudley, Albert E.; Kilgour, Andrea R.; Cranston, Meghan; Edwards, Michelle., 2007)

Unfortunately there are only a few researches concerning the history, the causes, medical, and social complications and treatment relevant to adults with FAS published. It is explained by the fact that the available services to diagnose and treat these individuals with FAS are rather limited. (Chudley, Albert E.; Kilgour, Andrea R.; Cranston, Meghan; Edwards, Michelle., 2007)

Moreover, according to some of the recent researches it was stated that adults with FAS have far a higher incidence of worsening in such spheres as social adaptive, for instance. (Chudley, Albert E.; Kilgour, Andrea R.; Cranston, Meghan; Edwards, Michelle., 2007)

It is essential to diagnose the fetal alcohol syndrome at the early stage in order to prevent serious consequences and disorders in the organism of the child. However, the possibility to stop this syndrome developing is extremely low, especially in case the woman drank too much alcohol during the pregnancy period. It is quite difficult to diagnose FAS because there is no medical test that can give accurate and true results. FAS can appear after some time and it may be not noticeable exactly after the child's birth.

However, there still are several criteria in order to diagnose FAS. First of all the doctor should look for some of the abnormal and unusual facial features. It is also necessary to check if there are any central nervous system problems. Moreover, in case the woman submits having drunk much alcohol during the pregnancy period, then the possibility of the FAS diagnosis is very high.

Unfortunately many children with FAS are undiagnosed and they do not receive proper treatment and the required attitude. This can result in serious mental health problems, especially in the adulthood. Such people can experience certain difficulties in attempting to be independent and to live alone.

### **Treatment**

Unfortunately it is almost impossible to cure the FAS. This is a lifetime syndrome. However, according to some of the recent researches it is possible to improve the physical and mental health of the child in case FAS is detected at the early stages of development.

The most effective components of the FAS treatment are certain trainings both for parents and for children. There should be used a quite different, special and unique approach to these children in order to help them behave normally and be adequate. It is also essential to use certain protective factors to help the child grow up and develop steadily and without any additional disorders and negative influences.

In order to prevent FAS in time and to use the proper treatment it is recommended to make the diagnosis of the FAS before the child is 6 years old. Moreover, there should be kind and loving atmosphere in the family. Stable and caring home environment is essential in order to help the child develop properly.

The FAS has a very significant and serious effect not only on the families of the people affected with FAS but also this syndrome influences the whole community. In case some parts of the community do not work properly then the whole system is damaged. (Chudley, Albert E.; Kilgour, Andrea R.; Cranston, Meghan; Edwards, Michelle., 2007)

That is why it is so essential to pay enough attention to the FAS and its influence on the contemporary society. Nowadays there is an urgent need for extra researches and new innovations concerning the fatal alcohol syndrome and the efficient ways of its prevention and proper treatment.

The main purpose of the contemporary society and science is to utilize the available evidence-based alcohol screening tools and some modern and most recent population-based strategies that can help to gradually achieve only alcohol-free pregnancies.

### References

- 1. Bell SH, Stade B, Reynolds JN, Rasmussen C, Andrew G, Hwang PA, Carlen PL. The remarkably high prevalence of epilepsy and seizure history in fetal alcohol spectrum disorders. Department of Pharmacology and Toxicology, and Centre for Neuroscience Studies, Queens University, Kingston, ON, Canada. 2010 Jun;34(6):1084-9. Epub 2010 Apr 5.
- 2. Burd, Larry1; Klug, Marilyn G.1; Martsolf, John T.1; Kerbeshian, Jacob2. Fetal alcohol syndrome: neuropsychiatric phenomics. Neurotoxicology and Teratology, Volume 25, issue 6 (November December, 2003), p. 697-705.
- 3. Chudley, Albert E.; Kilgour, Andrea R.; Cranston, Meghan; Edwards, Michelle. Challenges of diagnosis in fetal alcohol syndrome and fetal alcohol spectrum disorder in the adult. American Journal of Medical Genetics Part C: Seminars in Medical Genetics, Volume 145C, issue 3 (15 August 2007), p. 261 272.
- 4. Floyd RL, Weber MK, Denny C, O'Connor MJ. Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities, Prevention Research Branch, Fetal Alcohol Syndrome Prevention Team, Atlanta, Georgia 30333, USA. Developmental Disabilities Research Reviews [2009, 15(3):193-9]
- 5. Hoyme HE, May PA, Kalberg WO, Kodituwakku P, Gossage JP, Trujillo PM, Buckley DG, Miller JH, Aragon AS, Khaole N, Viljoen DL, Jones KL, Robinson LK. Department of Pediatrics, Division of Medical Genetics, H-315, Stanford University School of Medicine, Stanford, CA 94305-5208, USA. [2005, 115(1):39-47]