FETAL ALCOHOL SYNDROME {Teratogenic causes }

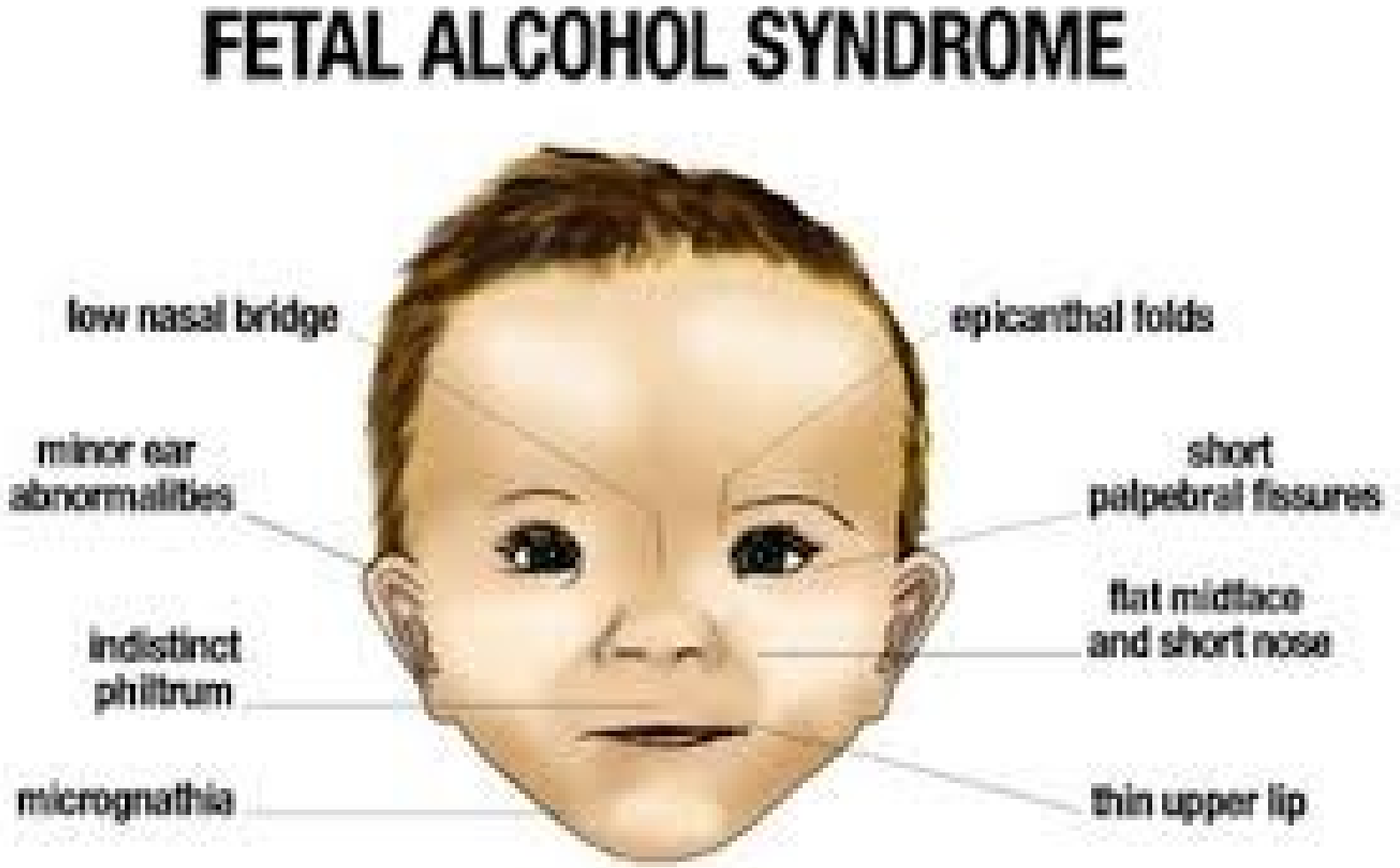
Definition: Fetal alcohol syndrome is a condition in a child that results from alcohol exposure during the mother's pregnancy. Fetal alcohol syndrome causes brain damage and growth problems. The problems caused by fetal alcohol syndrome vary from child to child, but defects caused by fetal alcohol syndrome are irreversible

Conti…

The increased incidence of alcoholism among adolescent and adult women has resulted in an increased incidence of fetal alcohol syndrome.

This syndrome is the third leading cause of birth defects and the third most commonly diagnosed cause of mental retardation. baby born with any congenital anomalies if mother drinking alcohol.

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FETAL ALCOHOL SYNDROME
low nasal bridge
epicanthal folds
minor ear abnormalities
short palpebral fissures
flat midface and short nose
indistinct philtrum
micrognathia
thin upper lip

etiology

- Alcohol enters your bloodstream and reaches your developing fetus by crossing the placenta
- Alcohol causes higher blood alcohol concentrations in your developing baby than in your body because a fetus metabolizes alcohol slower than an adult does
- Alcohol interferes with the delivery of oxygen and optimal nutrition to your baby's developing tissues and organs, including the brain

PATHOPHYSIOLOGY

1. Alcohol passes across the placenta quickly. It interferes with protein synthesis and with the absorption of many nutrients and can damage the embryo and fetus irreversibly.
2. when the pregnant women drinks alcohol it is rapidly diffused to all tissues in her body. only 10% of the total amount is excreted in breath and urine. The liver, kidney and lungs metabolize the remaining 90% to acetaldehyde and acetic acid. The acetic acid is then converted to carbon dioxide by muscle tissue. When the fetus receives alcohol across the placenta, its lower liver and kidney function does not allow the ethanol in its blood to be detoxified and its cell may be damaged.

fetal hypoglycemia may also occur when the fetus receives ethanol from the mother.

a moderate to high level of alcohol consumption during the first trimester of pregnancy when organogenesis is occuring,neonate may be born with growth deficiency and low birth weight.

Clinical manifestation;

1. Neonate who have the fetal alcohol syndrome are shorter in length, lower in weight and have smaller head circumference.
2. Some restriction of joint movement and limb abnormalities.
3. Sleeplessness, intelligence level is altered, high pitched cry, irritable.

- a small head, a smooth ridge between the upper lip and nose, small and wide-set eyes, a very thin upper lip, or other abnormal facial features

Conti....

- below average height and weight
- hyperactivity
- lack of focus
- poor coordination
- delayed development and problems in thinking, speech, movement, and social skills
- poor judgment
- problems seeing or hearing
- learning disabilities
- intellectual disability

complication

- Attention deficit/hyperactivity disorder (ADHD)
- Conduct disorder, which includes aggression, violation of rules and laws, and inappropriate social conduct
- Alcohol or drug misuse
- Mental health disorders, such as depression, anxiety or eating disorders
- Problems in school, with independent living and with employment
- Inappropriate sexual behaviors

Diagnostic evaluation

- Diagnosing fetal alcohol syndrome requires expertise and a thorough assessment. To make a diagnosis, doctors assess:
- The occurrence of drinking during the pregnancy
- Physical appearance and distinguishing features
- Physical growth and development
- Brain growth and development
- The doctor may also assess:
- Cognitive ability and learning and language development difficulties
- Health issues
- Social and behavior problems

Treatment

- However, several medications may address symptoms.
- These medications include:
- antidepressants to treat problems with sadness and negativity eg;sertraline hydrochloride-25mg.
- stimulants to treat lack of focus, hyperactivity, and other behavioral problems
- neuroleptics to treat anxiety and aggression
- antianxiety drugs to treat anxiety, tab-diazepam 5mg

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- There's no cure or specific treatment for fetal alcohol syndrome. The physical defects and mental deficiencies typically persist for a lifetime.
- However, early intervention services can help reduce some of the effects of fetal alcohol syndrome and prevent some of the secondary disabilities that result. Intervention services may involve:
- A team that includes a special education teacher, a speech therapist, physical and occupational therapists, and a psychologist
- Early intervention to help with walking, talking and social skills

Conti....

- Special services in school to help with learning and behavior issues
- Counseling to benefit parents and the family in dealing with a child's behavior problem.
- Medical care for health problems, such as heart abnormalities
- Treatment of the mother's alcoholism to enable better parenting and prevent future pregnancies from being affected

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- **Counseling**
- Behavioral training may also help. For instance, friendship training teaches kids social skills for interacting with their peers. Executive function training may improve skills such as self-control, reasoning, and understanding cause and effect.
- Parents and siblings might also need help in dealing with the challenges this condition can cause. This help can come through talk therapy or support groups.

prevention

- **Continue to avoid alcohol throughout your pregnancy. Fetal** alcohol syndrome is completely preventable in children whose mothers don't drink during pregnancy.
- **Consider giving up alcohol during your childbearing years** if you're sexually active and you're having unprotected sex. Many pregnancies are unplanned, and damage can occur in the earliest weeks of pregnancy.
- **If you have an alcohol problem, get help before you get pregnant.** Get professional help to determine your level of dependence on alcohol and to develop a treatment plan.

- **NURSING MANAGEMENT:**
- Nurse should see the mother during pregnancy if alcoholic,health team member should plan such as physician,social worker,psychotherapist and nutritionist can help to provide necessary support.
- Nurse can encourage the mother to abstain from alcohol and improve nutritional intake during pregnancy.

- Her diet is based on the
- recommended daily food allowances during pregnancy.
- Monitor fetal growth with the help of ultrasonography.
- After birth the infant may be lethargic or irritable depending on the time of mother last intake of alcohol, there is involvement of brain stem, the sucking reflex may be poor, necessary to give nasogastric feeding.

- Blood and urine specimen examination is necessary.
- Neonate should be made comfortable in a low stimulus,dim,quiet environment
- If sweating is frequent providing skin care properly.
- Sedation using Phenobarbital providing.
- Child vital signs should be monitored.