

NURSING GRAND ROUND



UB | 2024 | NURS 325

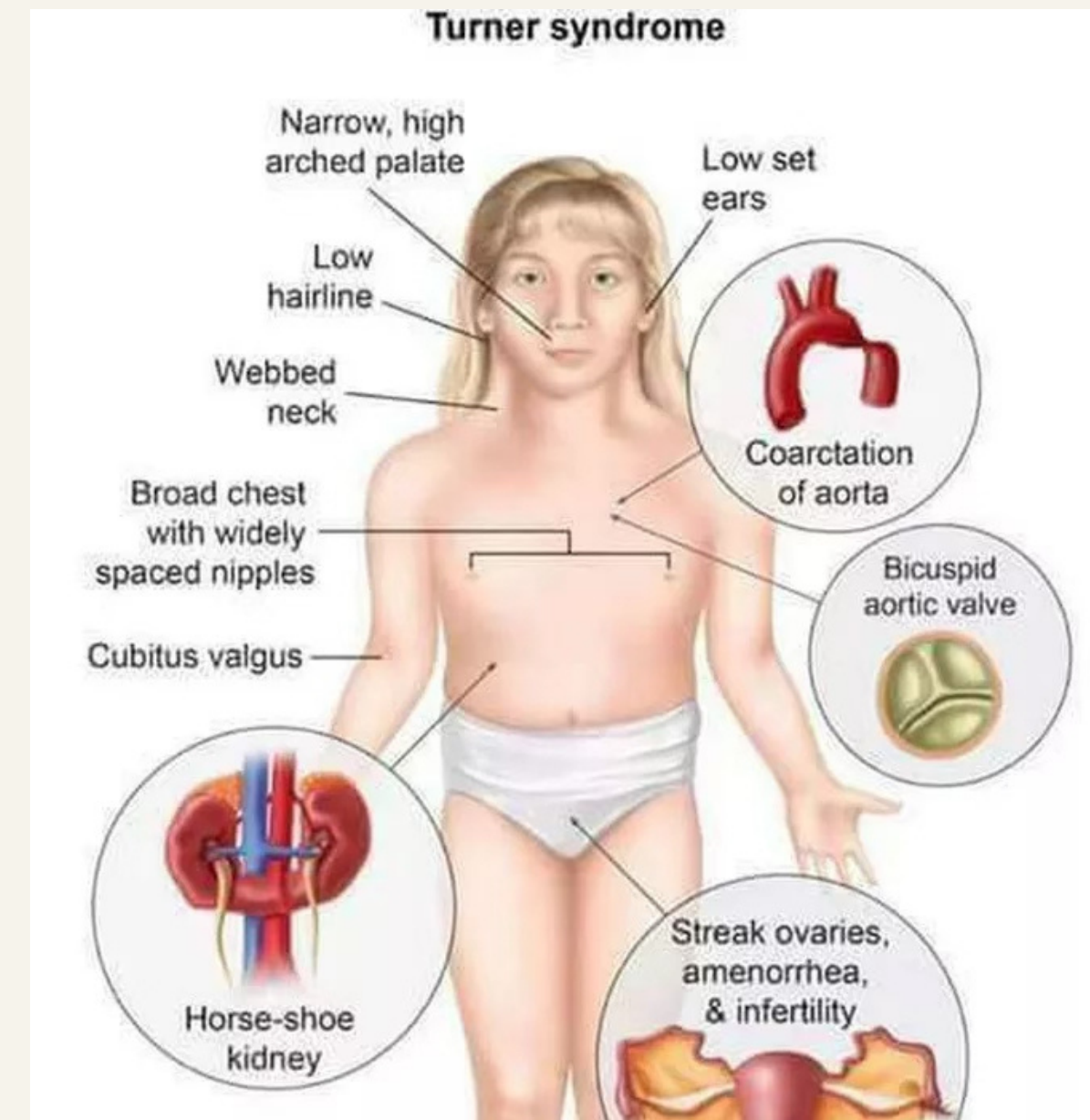
THE PATIENT

- Lily
- 16 year old female
- History of:
 - Short stature
 - Delayed puberty
- Recently moved to rural area
 - limited access to healthcare information
- Hasn't received medical attention since 1 years old
- Home dynamic
 - Behind on immunizations
 - One of 8 children
 - Low socioeconomic family
 - Homeschooled



PRESENTING SYMPTOMS

- **Vital Signs:** Within normal range.
- **Physical Examination:** Short stature, webbed neck, and a shield-shaped chest.
- **Developmental Assessment:** Absence of breast development, menstruation, and delayed onset of puberty.
- **Health History:** Lily has not been to the doctor since she was one year old and needs to catch up on immunizations. She is one of 8 children in a low socio-economic family.



COMPLICATIONS

- **Tuner Syndrome**
 - Short Stature
 - Delayed puberty
 - Potential Heart & Kidney Abnormalities
 - Infertility
- Lack of medical attention since early childhood adds complexity to her healthcare needs



TREATMENT PLAN



Growth Hormone Therapy



Estrogen Replacement Therapy (ERT)



Fertility Counseling



Catch-Up Immunization



Cardiac & Renal Monitoring



Psychosocial Support



Growth hormone



Hormone replacement therapy



Surgery



Psychological care

THE GENETIC COUNSELOR & CARDIOLOGIST

● Genetic

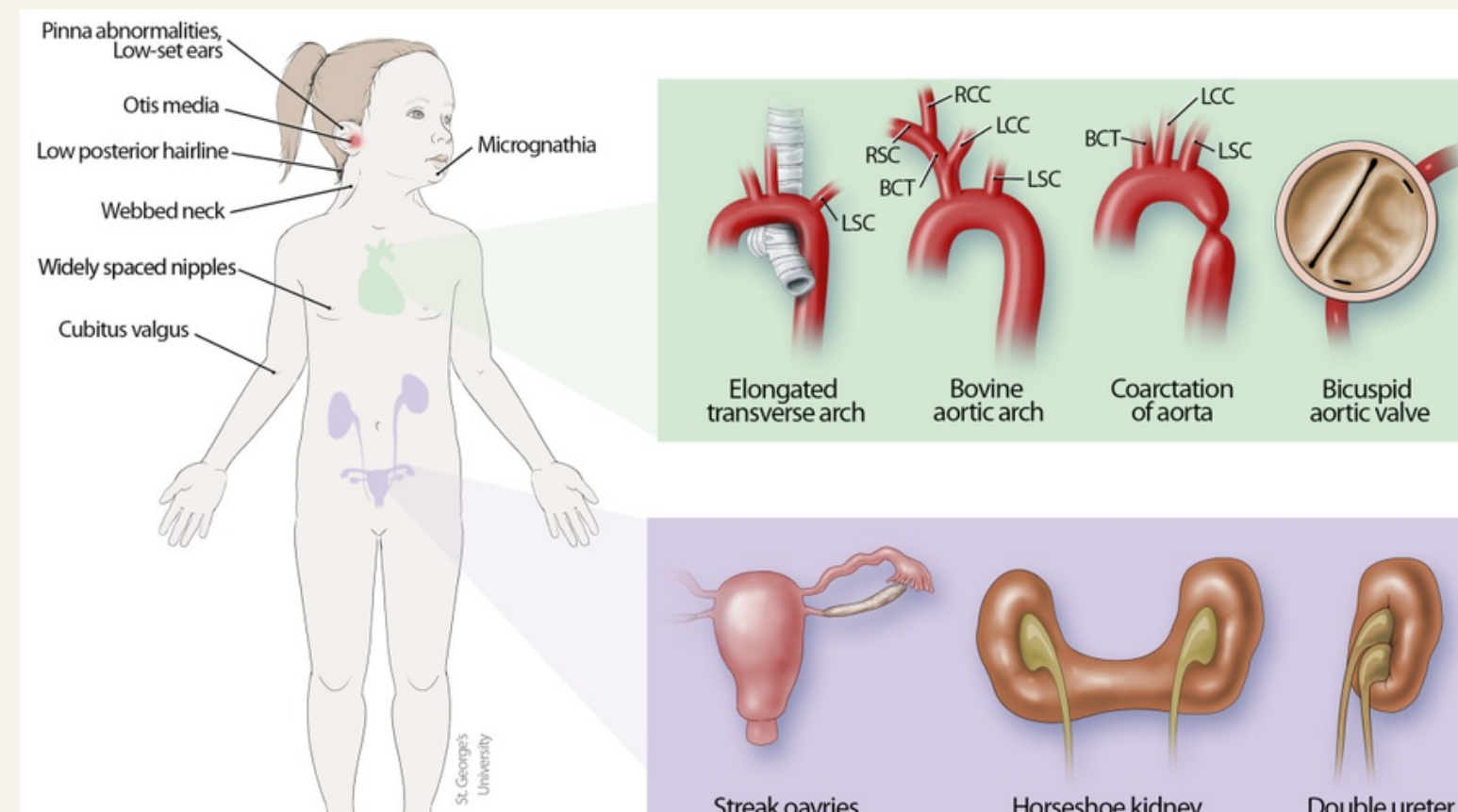
- Genetic Basis of Turner Syndrome
- Recurrence Risk
- Family Planning

● Cardiac

- Narrowing of the Aorta
- Aortic Dilation
- Heart Murmur
- High Blood Pressure
- Heart Failure

● Renal

- Structural Malformation
- Risk of UTI
- Kidney Stones
- Renal Failure



THE PEDIATRIC ENDOCRINOLOGIST

- Girls with Turner syndrome are entitled to receive high-dose growth hormone therapy as soon as it becomes apparent that they're not growing normally
 - It will help make them taller in adulthood.
- Growth hormone therapy is a daily injection, started at around 5 or 6 years of age or later.
- Estrogen replacement therapy is usually started around the time of normal puberty
 - In girls, this is around 11 years old
 - It may be recommended that estrogen replacement is started earlier in gradually increasing doses
 - Treatment will be tailored to the specific needs of each girl.
- Estrogen triggers the changes that usually happen during puberty, such as breast development.
 - It's important for the health of the womb and bones (protecting against osteoporosis).
 - It can be given as a gel, tablet or patch. Low doses are used to start with and gradually increased to adult levels with time and age, to mimic normal puberty.



THE REPRODUCTIVE ENDOCRINOLOGIST/ FERTILITY SPECIALIST

7

Potential Impact on fertility

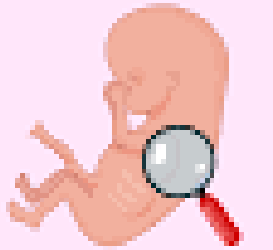
- Underdeveloped Ovaries
- X Chromosomes is partially or completely missing



Ovarian failure



High rate of miscarriage



Risk of foetal malformations

Fertility Preservation Options

- Egg Freezing
- Embryo Cryopreservation
- Ovarian Tissue Cryopreservation
- Hormone Replacement Therapy

THE IMMUNIZATION NURSE



Vaccinations Needed up to 16 years old:

- DTap, Hib and Pneumococcal Dose 4, if not given
- Covid vaccine (if low-risk)
- Influenza/ Flu every year
- Hep A (2 doses) if not given
- MMR and chickenpox Dose 1 & 2
- HPV
- Tdap 1
- Meningococcal ACWY
- Meningococcal B
- <https://www.cdc.gov/vaccines/schedules/easy-to-read/child-easyread.html>

THE PEDIATRIC NURSE

General medical care required for Turner Syndrome:

- Physical growth and developmental monitoring
 - Hormone therapy may be recommended
 - Regular screenings of all systems, including heart and kidney
 - Vision and hearing screenings
 - Emotional support (therapy, support groups, finding people with Turner Syndrome, etc)
-
- Regular monitoring, proper treatment and emotional support help patient manage and thrive!



SOCIAL WORKER

Turners Syndrome Society

- Provide educational materials, support groups and advocacy efforts
- Local and online support groups
- <https://turnersyndromefoundation.org/living/>

Vocational Training

- Prepare for employment opportunities for their skills and capabilities
- Career counseling
- Accommodations



Financial Assistance

- Financial assistance programs (disability benefits or grants)
- Can be used towards medical expenses, therapy, and other necessary supports
- <https://turnersyndromefoundation.org/living/resources/reimburse-assist/>



PSYCHOCOCIAL SPECIALIST



Many with Turner Syndrome Experience lower self-esteem and self concept than those who do not have TS



- Due to this it would be important to provide counseling/ therapy for Lilly to have someone she can speak to.
- Outside of therapy , it is encouraged that the parents engage in conversations with their child that addresses the way she feels about herself.
- Allow the patient to express her thoughts and concern about her future fertility, as this is affected by Turner Syndrome.
- Since she is homeschooled I would also recommend her parents find a group where their child can interact with others who have TS

