

CONGENITAL HEART LESIONS ((C.H.L

BY THE BOOKS: 0.8

IN FACT: 3-5%

INCLUDING: - BICUSPID AORTIC VALVE

MITRAL VALVE PROLAPSE -

LATE DIAGNOSIS -

:INCREASED INCIDENCE IN ADULTS

BETTER DIAGNOSIS IN INFANCY

BETTER TREATMENT: - MEDICAL

CATHETERIZATION -

SURGERY -

ALMOST NO LESIONS DO NOT REQUIRE
FOLLOW UP

GOOD PRACTICE:
FOLLOW AT VARYING INTERVALS
DEPENDENT ON LESIONS

IN 2007 IN CANADA:
MORE ADULTS THAN CHILDREN WITH
C.H.L

C.H.L → - CYANOTIC
- ACYANOTIC

:8 OF IMPORTANCE LESIONS; 300 <

ACYANOTIC 6: - Atrial Septal Defect

Ventricular Septal Defect -

Patent Ductus Arteriosus -

Pulmonic Stenosis -

Bicuspid Aortic valve) Aortic Stenosis) -

Coarctation of Aorta -

CYANOTIC 2: - Tetralogy of Fallot

Transposition of the Great Arteries -

:IN ADULTS 3 GROUPS ENCOUNTERED

:A) MINOR LESIONS

(ATRIAL SEPTAL DEFECT (SMALL -
PULMONIC STENOSIS – MILD -
BICUSPID AORTIC VALVE -
MANY OTHERS +

:B) SIGNIFICANT LESIONS

Atrial Septal Defect -

Patent Ductus Arteriosus -

Single Ventricle + Pulmonic Stenosis -

Fallot + Pulmonic Stenosis -

Ebstein Anomaly -

Eisenmenger Syndrome/ Bicuspid Aortic Valve -

Mitral Valve Prolapse -

ARMY: 75000 RECRUITS



MANY LESIONS

C) “REPAIR” – TOTAL
PARTIAL

RESIDUAL LESIONS

FOLLOW UP- UTMOST IMPORTANCE

:FEW LESIONS CURED

P.D.A

A.S.D – MANY

TOTAL ANOMALOUS PULMONARY

VENOUS RETURN – MANY

:FOLLOW UP INCLUDES

HISTORY

PHYSICAL

E.C.G

ECHOCARDIOGRAM

HOLTER

ERGOMETRY

CATHETERIZATION - OCCASSIONALLY

CLINICAL EXAMINATION HIGHLIGHTS

FEMORAL PULSES -

SECOND HEART SOUND -

CLICKS -

(?SITTING POSITION (STANDING -

BACK -

C.H.L FOLLOW UP

:MAJOR MEDICAL ISSUES

(ARRHYTHMIAS (INTRINSIC/RELATED REPAIR

ENDOCARDITIS

HEART FAILURE

PULMONARY HYPERTENSION

TRANSPLANTATION

ARRHYTHMIAS

COMMON

ATRIAL FLUTTER MOST COMMON

ATRIAL FIBRILLATION – AGE RELATED

TREATMENT: AS IN CASES WITHOUT C.H.L

DIFFERENT ANATOMY – ABLATION

COMPLETE HEART BLOCK

PARTLY RELATED TO ANOMALY

CORRECTED TRANSPOSITION , POLYSPLENIA –LEFT

(ISOMERISM

ENDOCARDITIS

.VERY N.B

HIGH INDEX OF SUSPICION

PREVENTION OF DENTAL PROBLEMS

APPROACH – MODIFIED GUIDELINES

HEART FAILURE - DYSFUNCTION

TIME RELATED -

AGE RELATED -

OP. RELATED -

TREATMENT: AS IN CASES WITHOUT C.H.L

?BIVENTRICULAR PACING

PULMONARY HYPERTENSION

CRITICAL PRE-OP. AS INDICATION FOR SURGERY

CRITICAL AT OP.  FOR SUCCESS

.CRITICAL POST OP

N.B.: PREVENT EISENMENGER

IF PRESENT: TREATMENT SIMILAR TO CASES WITHOUT C.H.L

TRANSPLANTATION

USUALLY LATE- “BURNED OUT” C.H.L
OR .POST OP
OR TIME RELATED

DETERIORATION

:SPECIAL SITUATION

EISENMENGER -

- PROTEIN LOSING ENTEROPATHY

PREGNANCY

.MOST LESIONS, PRE / POST OP

NO PROBLEMS –

NORMAL PREGNANCY / DELIVERY

SBE PROPHYLAXIS / “PROBABLY” INDICATED

:N.B.: CONTRAINDICATIONS

PULMONARY HYPERTENSION -

EISENMENGER -

FROM - MODERATE AORTIC STENOSIS

MODERATE LEFT SIDED OBSTRUCTION -

SPORT

BASED ON BETHESDA CRITERIA

[JACC-2005]

N.B. - VENTRICULAR DYSFUNCTION

ARRHYTHMIAS -

PULMONARY HYPERTENSION -

C.H.L  8 COMMON LESIONS
> 300 LESIONS ALTOGETHER

:N.B.: COMPLEX LESIONS

HYPOPLASTIC LEFT HEART -
- HYPOPLASTIC RIGHT HEART

SINGLE VENTRICLE -

ISOMERISM -



FINAL COMMON PATHWAY: FONTAN OPERATION

FONTAN OPERATION

BYPASS RIGHT SIDE OF HEART



CONNECT VENA CAVA TO PULMONARY ARTERIES

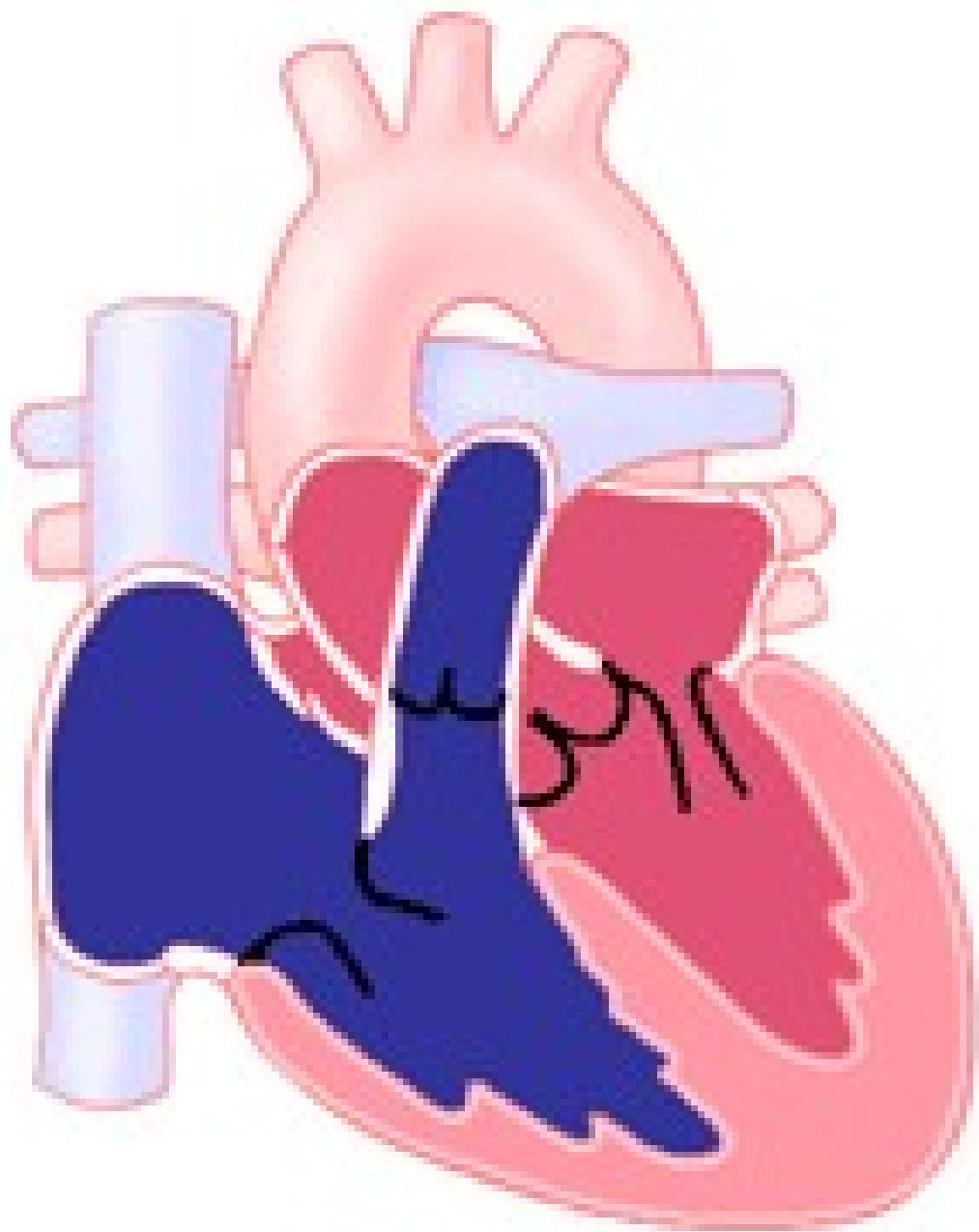
:COMPLICATIONS

ARRHYTHMIAS

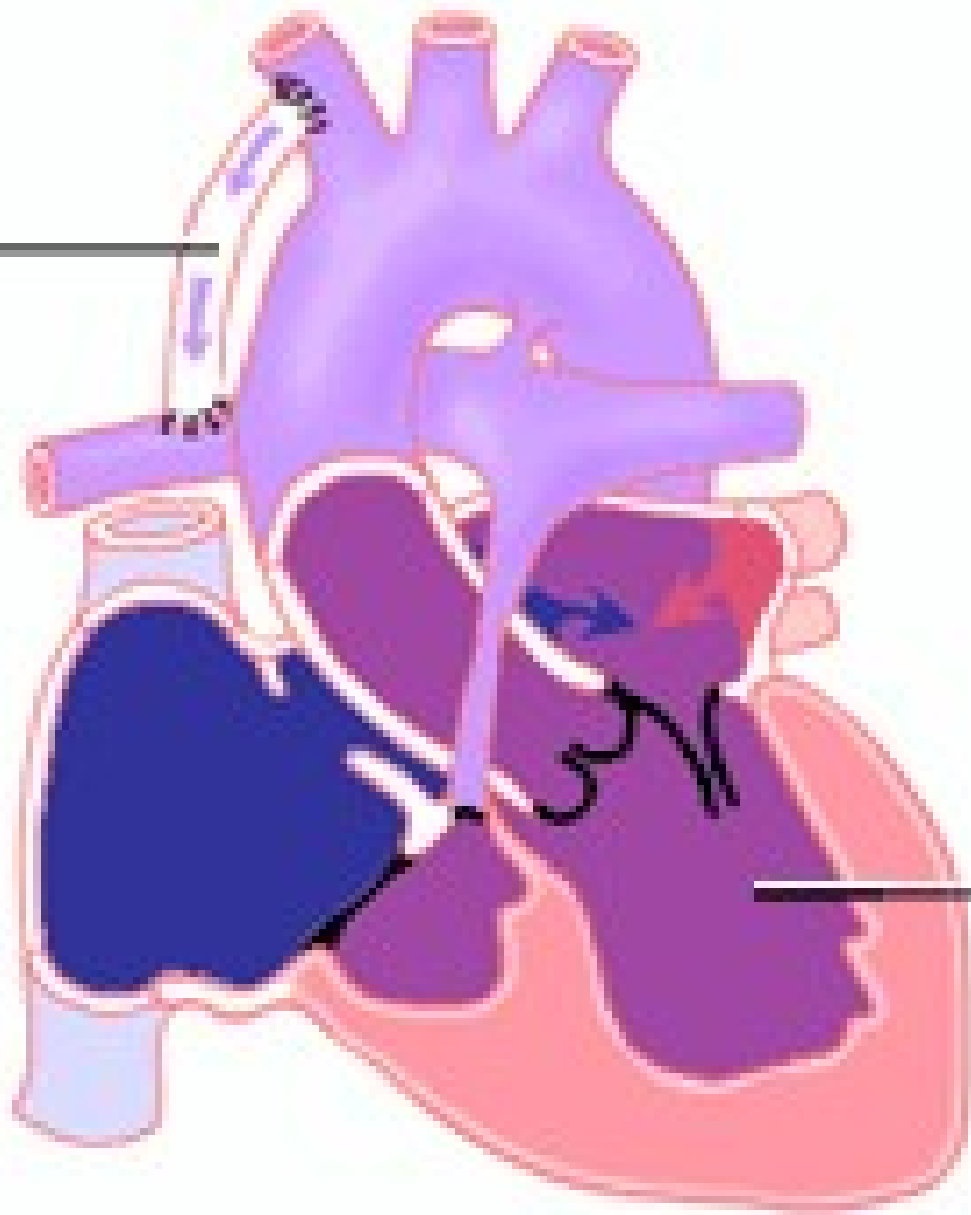
HEART FAILURE

THROMBUS

PROTEIN LOSING ENTEROPATHY

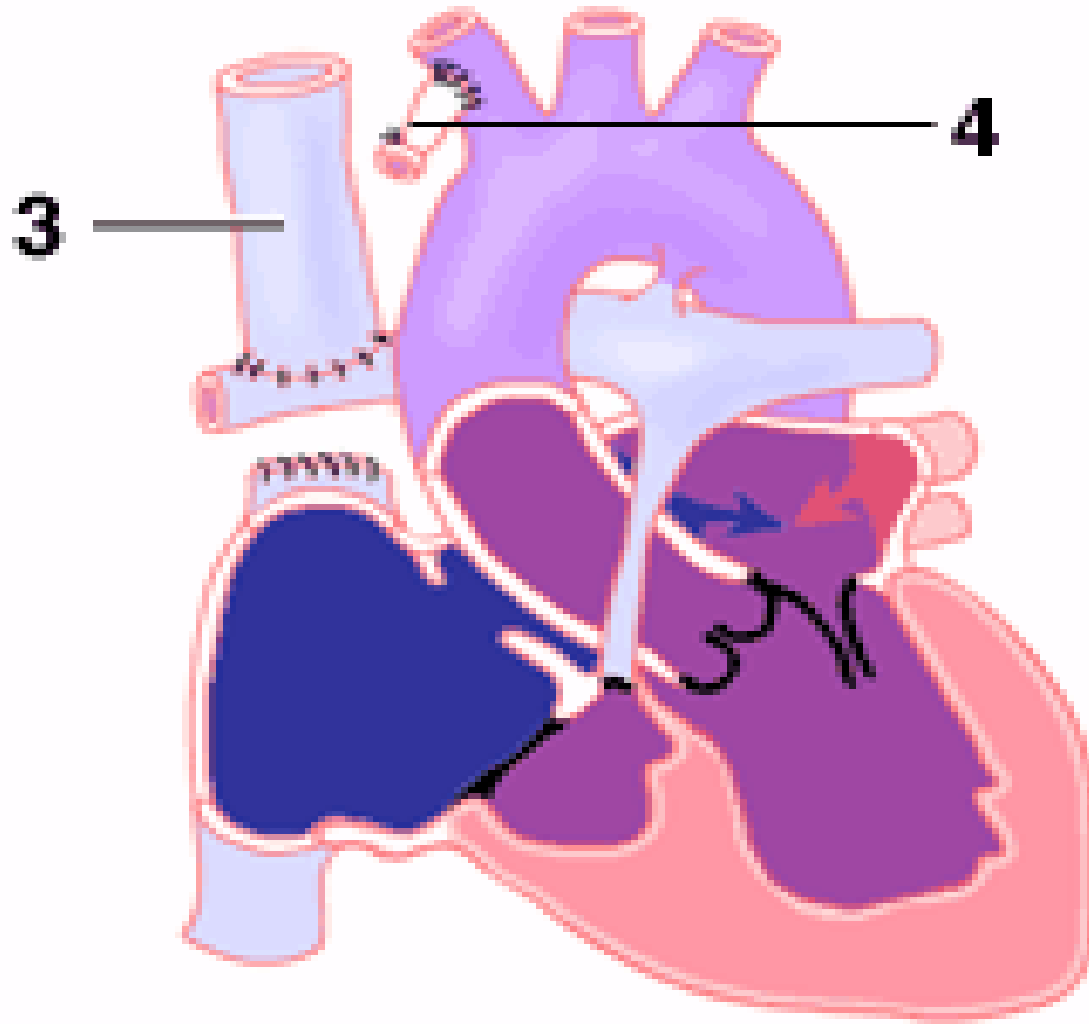


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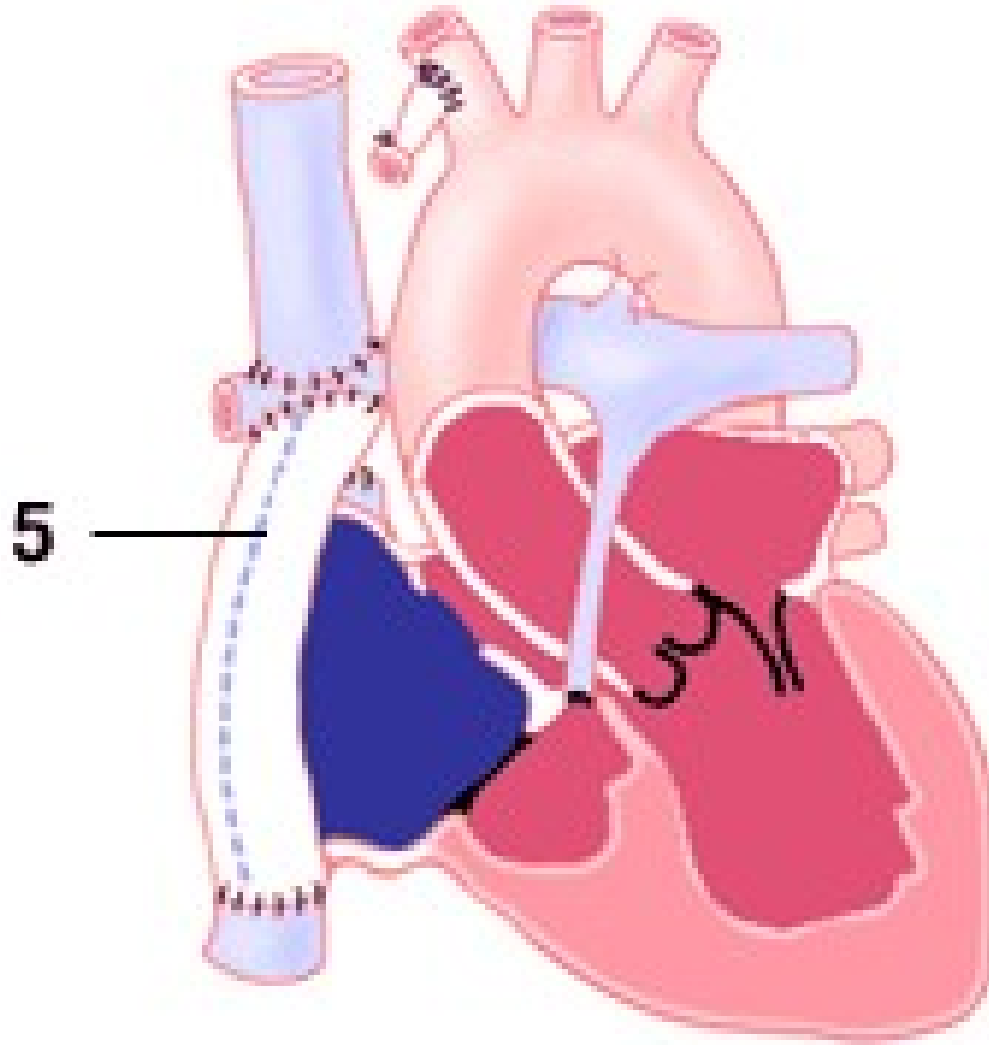


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Single Ventricle - Bidirectional Glenn



Single Ventricle - completed Fontan



ADULTS CONGENITAL HEART LESIONS NEWSPECIALTY Rabin Medical Center

- ± 3000 Cases

- From 18-20 yrs → 80 yrs

- Pediatric + Adult cardiologist

+

Adult cardiologist

Personal Follow up:

- 20, 30 → 42 years

<i>LESION</i>	<i>LONGEVITY</i>	<i>SCHOOL</i>	<i>SPORT</i>	<i>BETHESDA</i>	<i>ARMY</i>	<i>HIGHER EDUCATION</i>	<i>PHYSICAL WORK</i>	<i>PREG NANCY</i>
<i>A.S.D</i>	✓	✓	ALLI	IA	✓ -	✓	✓	✓ ✓
<i>V.S.D</i>	✓	✓	ALL	IA	✓ -	✓	✓	✓ ✓
<i>P.D.A</i>	✓	✓	ALL	IA	✓ -	✓	✓	✓ ✓
<i>COARC TADON</i>	✓	✓	ALL	IA IB	✓ -	✓	✓	✓ ✓
<i>PULMONIC STEADSS</i>	✓	✓	ALL	IA IB	✓ -	✓	✓	✓ ✓ -
<i>NO RIT STEADSS</i>	✓	✓	ALL	IA IB NO SPORTS	✓ -	✓	✓	✓ ✓ -

LESSON EDUCATION WORK	LONGEVITY	SCHOOL	SPORT	BETHESDA	ARMY	HIGHER	PHYSICAL	PREGNANCY
Tetralogy ± Of Fallot	± √	√			√	√		√ AS
Transposition Mustard	√			ALL	IA IB			√
Late ne	√	√	-	ALL	IA	√	√	
Fentanyl early: 50% mortality Late: Better prognosis	± 36 yrs	IB √			IA	- -	√	√

