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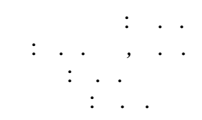
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(20).

20 000

XIX . 1826

20°C

1482 /).

1876

D



()



).

(

:

1916

1.1.

D

t.

$$: D = tc/2.$$

(.1.1).



1960-

1.2.

(

$$I_x = I_0 e^{-\dots}$$

$$\frac{I_x}{I_0} = \dots$$

1.3.

(1.2),

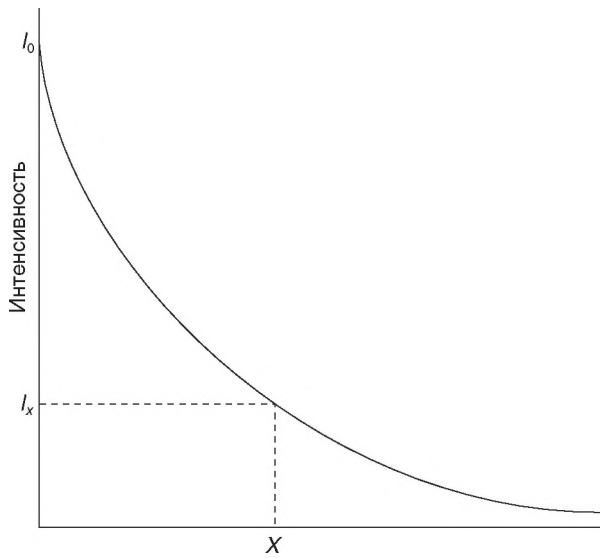
1.1

$$X = 1$$

X-

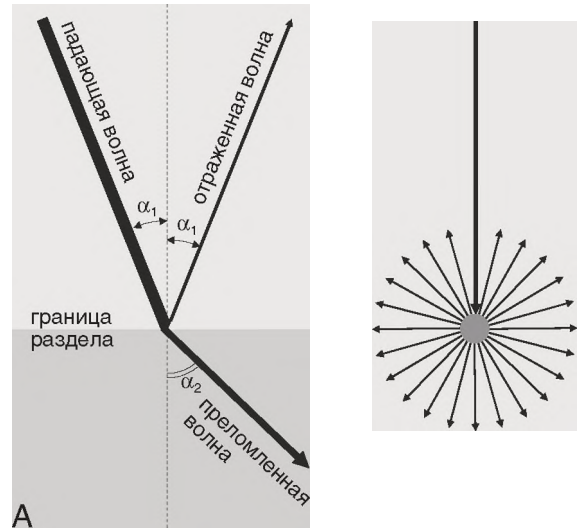
f-

(1.4).



1.3.

I_x



1.4.

(1.4,):

$$\frac{\sin \alpha_1}{\sin \alpha_2} = \frac{v_1}{v_2}$$

1.1.

2

	380
	15
()	1—5
	0,6—1
	0,7—0,2
	0,08
	0,05

():

$$Z = \rho v$$

1.2.
R,

Z_1, Z_2 :

$$Z_1 Z_2$$

1.2.

	10^6	10^2
330	0,0004	
650—1160	0,3—0,5	
1460—1470	1,4	
1480	1,52	
1540—1580	1,64—1,68	
1545—1630	1,65—1,74	
2700—4100	3,8—7,4	

15.1.

secundum

ostium

ostium primum
sinus venosus

d-

(l-)

(Q_p/Q_s) —

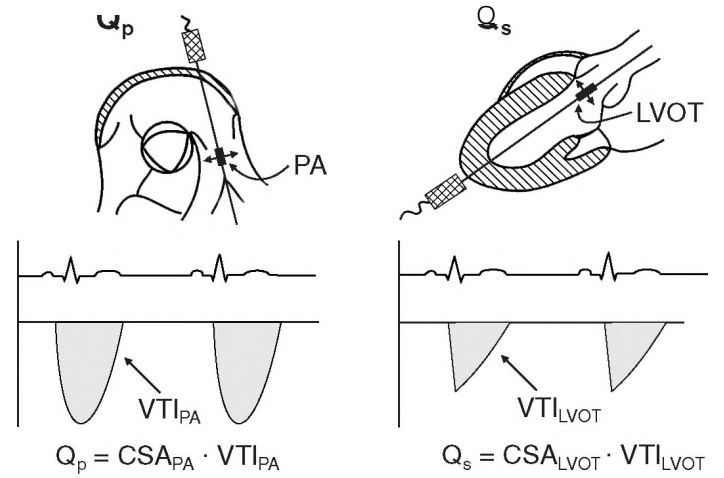
. 15.2

. 15.1

15.2.

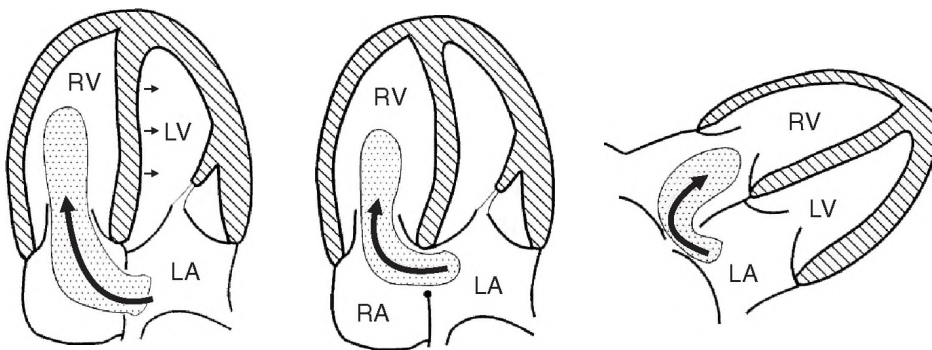
Qp:
 Qs:
 Qp:
 Qs:
 Qp:
 Qs:

Qp — , Qs —
 Child JS. Echo-Doppler and color-flow imaging in congenital heart disease, in: Schiller NB, ed. Doppler Echocardiography. *Cardiology Clinics*, 8(2), 1990.



15.1. (Qs) (Qp)

(PA)
 (LVOT).
 Q_p/Q_s
 Q_p Q_s CSA_{LVOT}
 CSA_{PA} VTI_{LVOT} VTI_{PA}
 $Q_p/Q_s = 2:1$
 (22%)
 (15.2,15.3).
ostium primum —

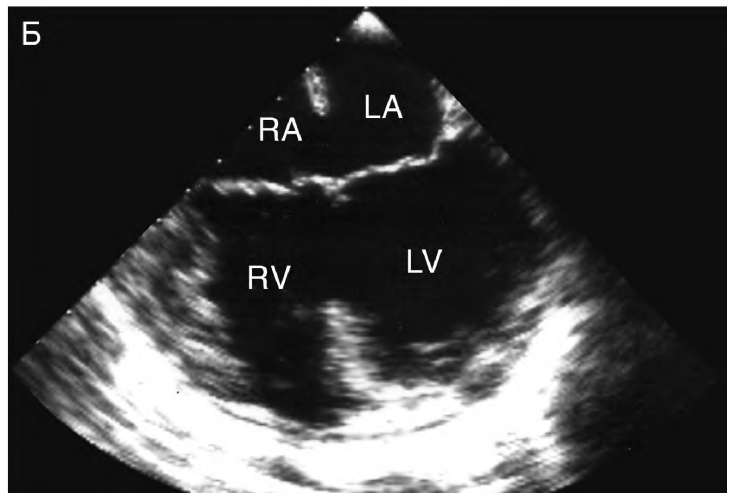
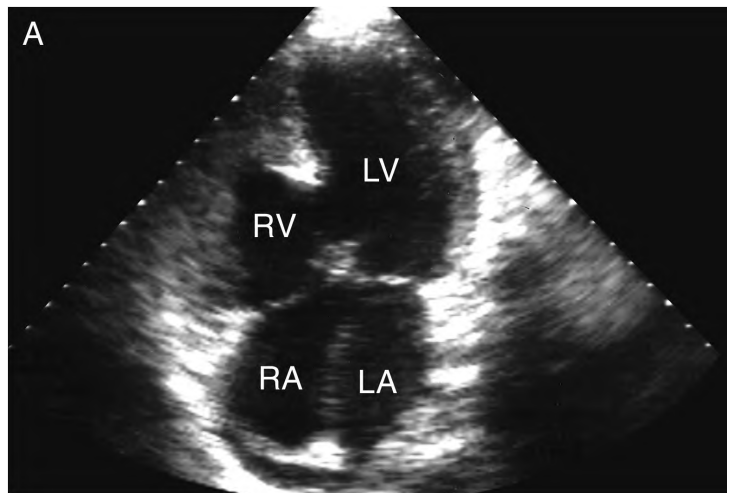
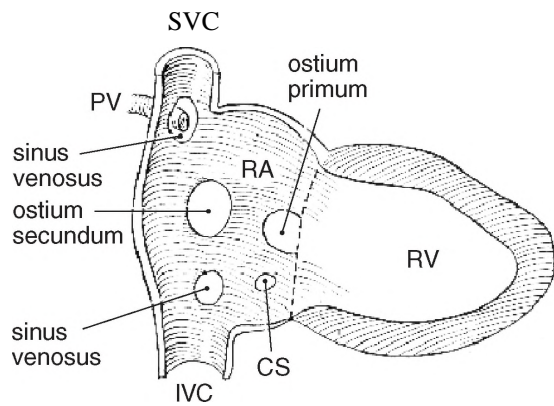


ostium secundum

ostium primum

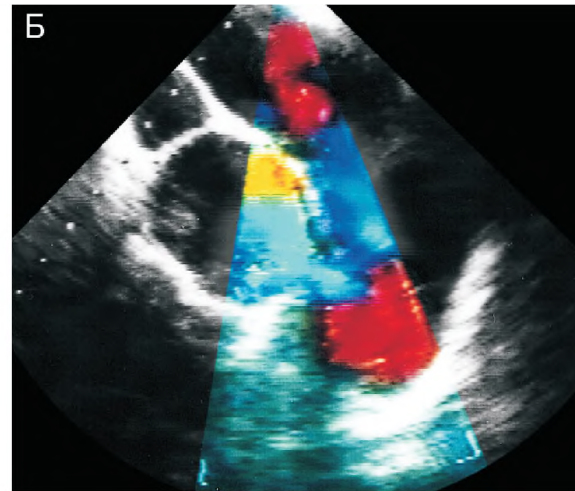
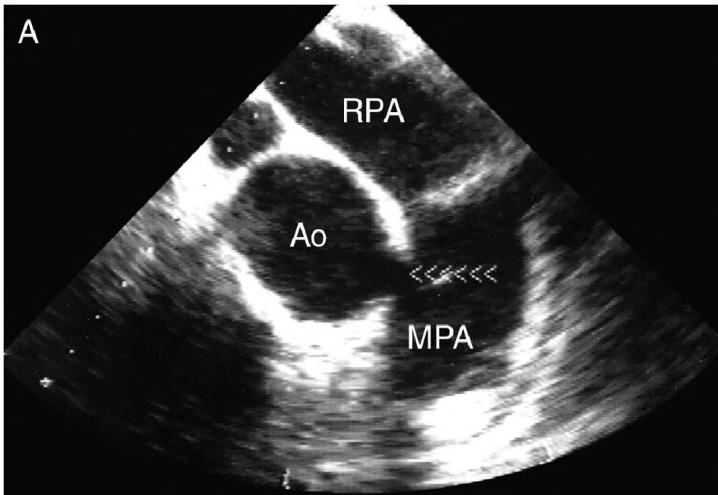
ДМПП типа
 sinus venosus

15.2.
 ().
 ostium secundum (75%)
),
 um primum (20%)
 venosus (5%). LA —
 LV — , RA —
 , RV —
 Otto CM. Textbook of Clinical Echo-
 cardiography, Saunders, 2000.



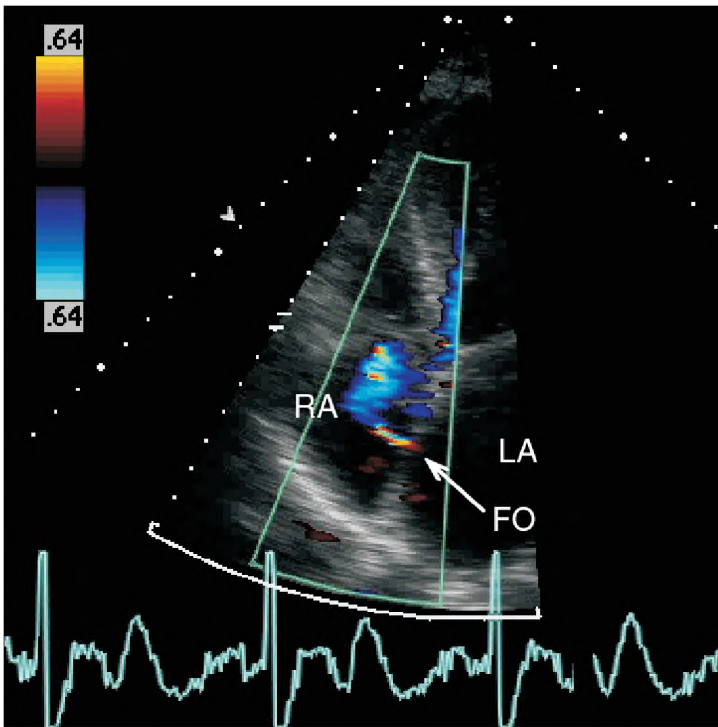
15.3. —
 :
 : ostium primum, ostium secundum,
 sinus venosus —
 ()
 (CS), IVC —
 , PV — , RA —
 , RV — , SVC —
 ,
 ,
 (. 15.4, 15.5).
 ostium secundum (. 15.6—15.8, 15.35,
 17.42) —
 —
 (. 15.9, 15.10).
 ostium secundum
 ,
 () ,
 ()
 , . 15.11).
 — sinus
 venosus (. 15.12),
 (—). sinus venosus
 (. 15.13).
 —

15.4. ()
 () ,
 (). ostium primum
 ;
 , LV — , RA — . LA —
 , RV —
 ostium primum



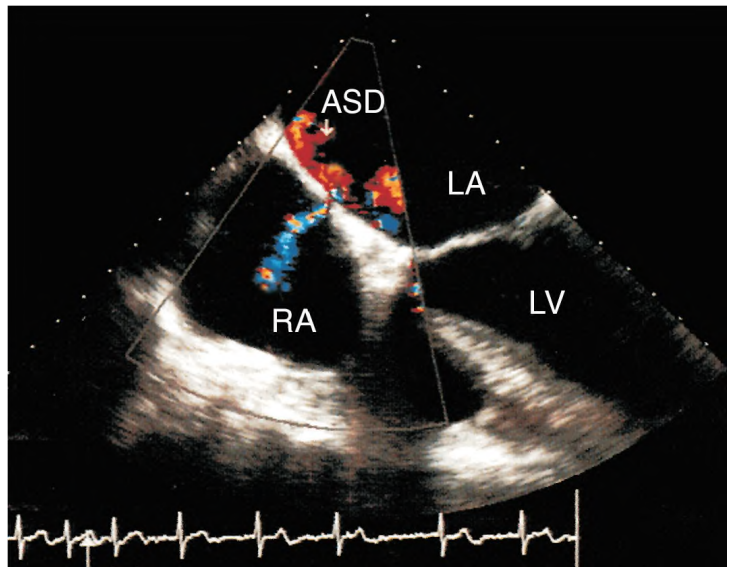
14.15.

().
MPA — , RPA — . Ao —



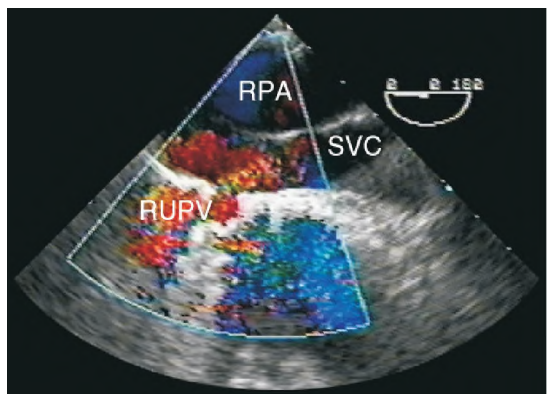
15.10.

) , RA — . FO — (, LA —



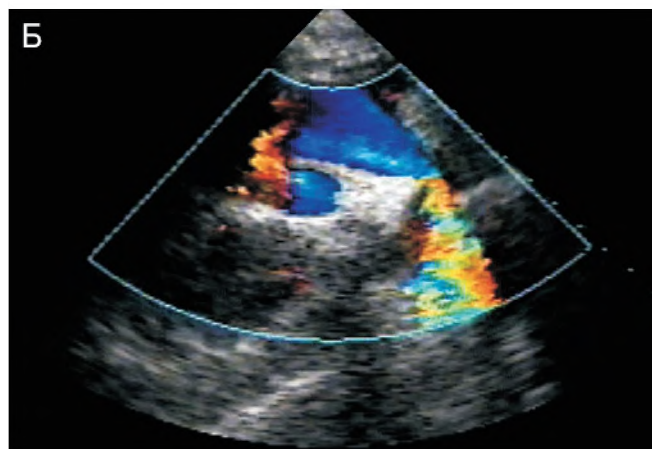
15.11.

. ASD — , LV — , RA — , LA —



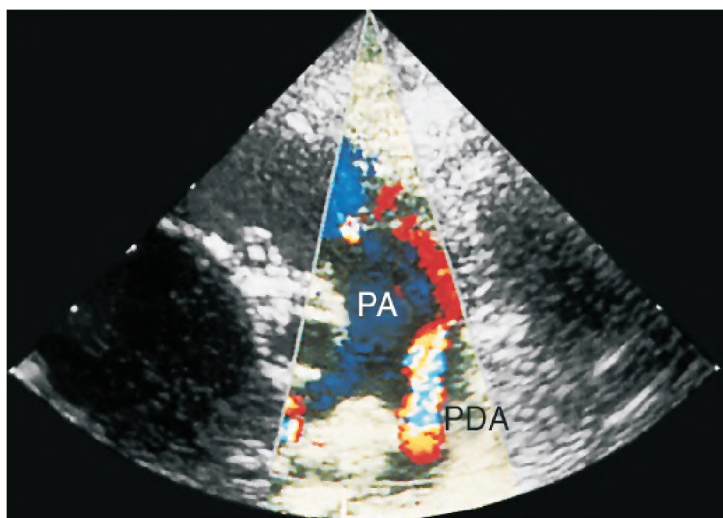
15.13.

, RUPV — . RPA — , SVC —
 - Darryl D. Esakof -



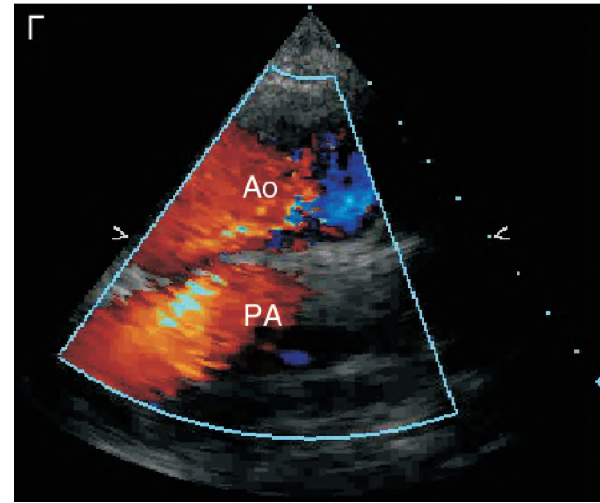
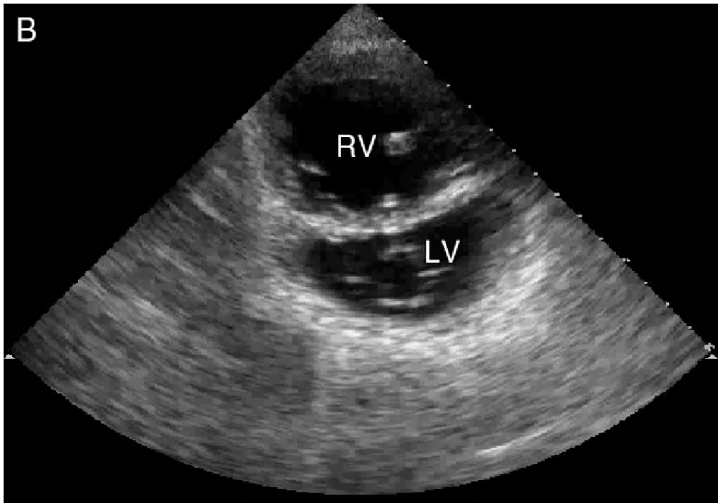
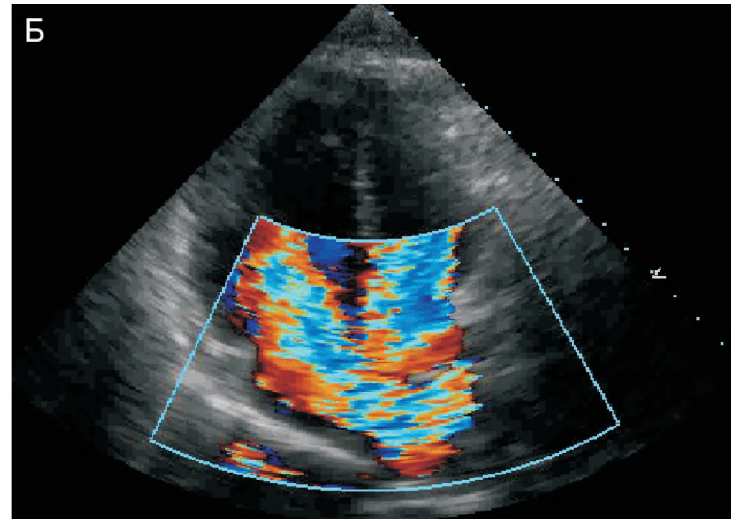
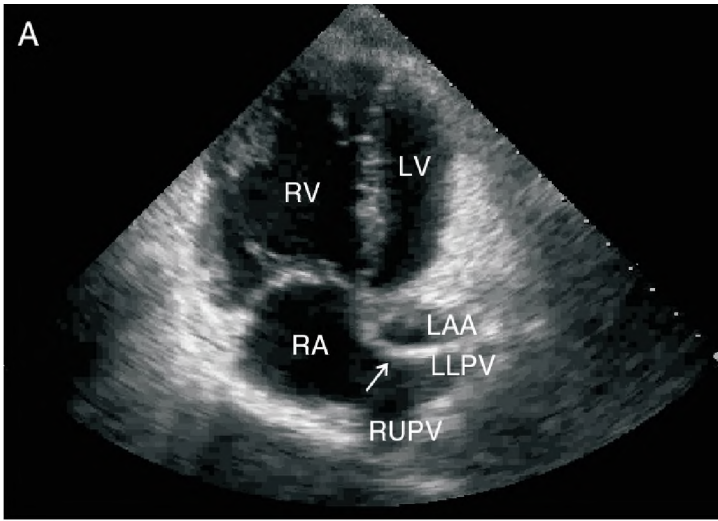
15.25.

() , ()
 () , ()
 . Arch — , RPA —
 - Darryl D. Esakof -



15.22.

() . PA — , PDA —
 -
 ;
 ;



15.28. d-

(), ().

LLPV — , LAA — , LV —
 PA — , RA — , RUPV —
 , RV —