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pulse tissue Doppler

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pulse tissue Doppler (PTD)

:

PTD Doppler M Mode 2D

PTD

:

(Early peak velocity/ Late peak velocity) E/A PTD

DT (Deceleration time) ($P < /$) RT (relaxation time) ($P < /$)

E/A ($P < /$) late peak velocity (A_m) ($P < /$)

($P < /$ $r = /$) E/A

Longitudinal

:

E/A

RT

PTD

pulse tissue Doppler :

Congestive Heart Failure ()

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] (BP $\geq$ /) .()
 [
 () after load
 remodeling geometry
 Valvular regurgitation .()
 Valvular heart disease
 ECC ()
 wall motion abnormality pulse Doppler
 .()
 (pulmonary hypertension COPD) tissue Doppler Imaging
 Congestive Heart Failure ()
 .() direction
 Doppler pulse tissue Doppler
 .
 ()
 PTD .()
 HR . (-)
 Longitudinal
 Doppler M-mode 2D .()
 pulse tissue Doppler
 Vingmed system five ultrasound system .()
 tissue Doppler Longitudinal
 3.5 MHS
 Septal wall M-Mode . pulse tissue Doppler
 left ventricular post wall right ventricular ant wall
 (Dimension Left Ventricular End Diastolic) LVEDD
 (LV End Systolic Dimension) LVESD
 .
 left ventricular fractional shortening
 TAPSE

[S		(Tricuspid Annular Plane Systolic Excursion)	
Em peak(m/s)			
Am peak(m/s) [myocardial early peak velocity]	2D	TAPSE	.()
[myocardial late peak velocity]			apical four chamber
[deceleration time] DTm(ms) Em/Am			
relaxation time] RTm(ms)	RV		
[Em Sm			
mean $\pm$ SD			EF=3.2×TAPSE(mm)
SPSS 11.5		Kaul	() RV
	t Chi-square		pulse Doppler
	P< /	sample volume	apical four chamber
			Tip
		A-peak velocity	E-peak velocity
		(Isovolumic relaxation time) IVRT	E/A
		(Diastolic filling period) DFP	
		DFP E/A Apeak Epeak	
	(heart rate)	pulse tissue Doppler	.()
	BMI	3.5 MHS	
		sample volume	apical four chamber
	.(P< /)	lateral mitral annulus	
2D M Mode			LV
) RV ant wall thickness		sample volume	
(P< / / $\pm$ / / $\pm$ /	RV		lateral tricuspid annulus
) LV post wall thickness	pulse tissue Doppler		
(P< / / $\pm$ / / $\pm$ /	Sm		
/ $\pm$ /) LVEDD		Am Em	
(P< / $\pm$	Sm peak (m/s) :		
	PCT (mm) [myocardial systolic peak]		
left ventricular- LVESD	QRS		precontraction time]
	contraction time] CT(mm) [Sm		
	TAPSE fractional shortening		

($P < /$) PTD
RV
.() Em Em -
Myslinski
mild to mod .($P < /$ $r = /$)
Em/Am Em/Am -
peak velocity .($P < /$ $r = /$)
RV filling TE/TA .()
.() LV filling RTm RTm -
.($P < /$ $r = /$)
PTD DTm Am -
Cicala .

PTD
Em/Am
($P < /$) DTm ($P < /$) RTm ($P < /$)
($P < /$) Em peak
() PTD

M Murat Tumuklu

PTD

lat tricuspid annulus

E/A ($P < /$) peak A ($P < /$) peak E
mid RV free wall PTD ($P < /$)
E/A ($P < /$) A ($P < /$) E
($P < /$) peak ($P < /$)

Strain Imaging PTD

Doppler

.()

DT ($P < /$)

RV peak velocity

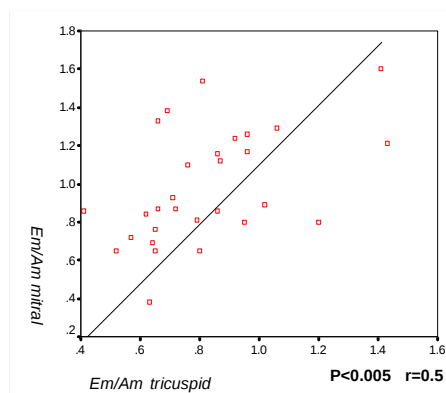
E/A

($P < /$)

(right ventricular wall impairment)

SV

peak filling rate



Em/Am

-

	overload	Longitudinal	
	Longitudinal	PTD	
	Em/Am	ventricular relaxation	Em :
	RTm DTm	atrial activity	Am
		Em/Am <	(P< /)
()	M Murat Tumuklu Cicala	RTm (P< /)	
		isometric relaxation	
	PTD	(P< /) DTm	(P< /)
		TAPSE	
	Ventricular interaction	PTD	
pulse tissue Doppler		filling	filling
	Doppler	RTm Em/Am Em peak	
		DTm Am peak	
video tape		functional intraction	Em/Am
			passive

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