

:/ / :  
/ / :

### SPO2

) SPO<sub>2</sub>

SPO<sub>2</sub>

V-Slope RER

V-Slope RER

SPO<sub>2</sub>

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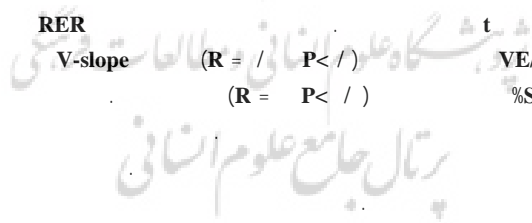
P< / )  
P< / )

RER  
V-slope

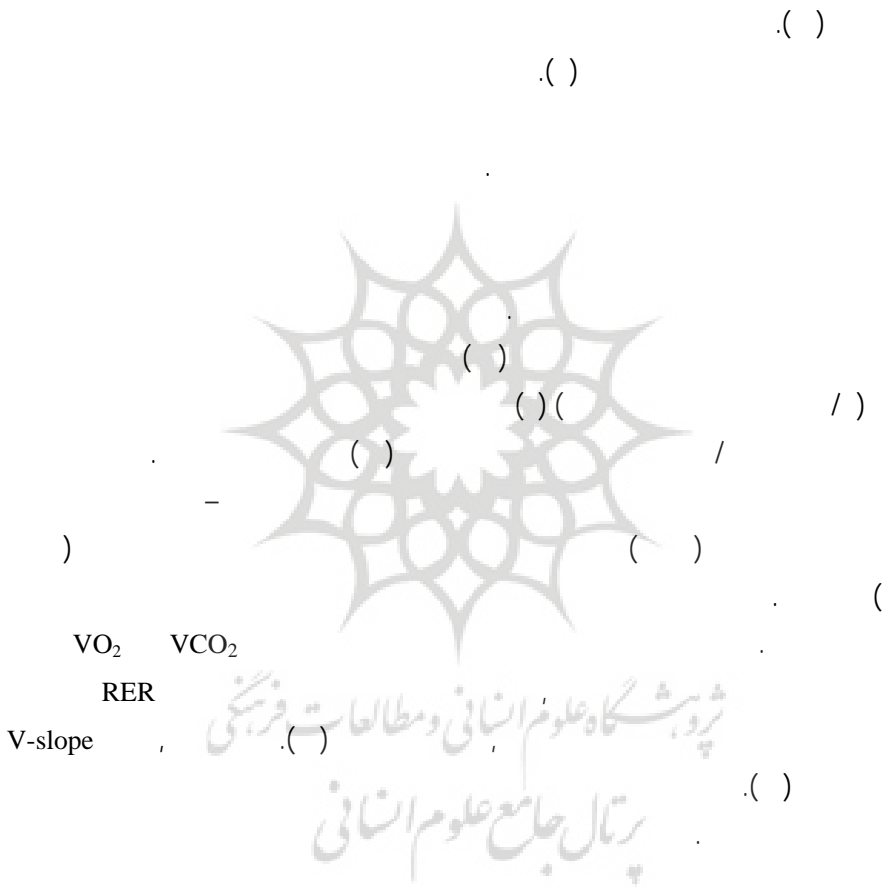
(R = / P< / )  
(R = P< / )

YE/Vo<sub>2</sub>  
%SPO<sub>2</sub>  
%SPO<sub>2</sub>

(R = /  
,(R = /



.SPO<sub>2</sub>



- 1- Lactate turn point
- 2- Fixed blood lactate accumulation
- 3- Individual anaerobic threshold
- 4- Ventilatory threshold
- 5- Respiratory exchange ratio
- 6-  $V_e/v_{o_2}$

...  $SpO_2$

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$PaCO_2$

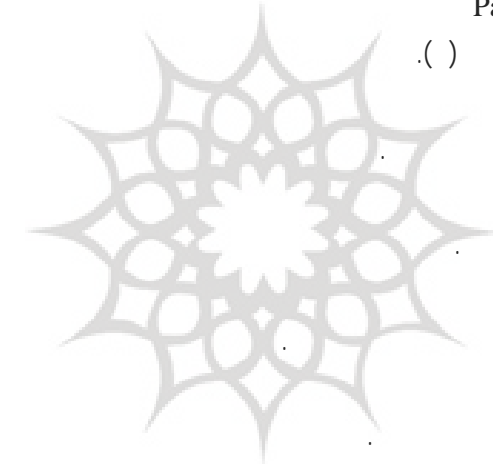
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$PaCO_2$

( )

$SOP_2$



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1-  $ve/vco_2$

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body composition analyzer (inbody 3.0, biospace Co. Ltd)

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gas analyzer (k4b2)

VO2max

( )

VO2max

VO2max

VO2

( )

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VO<sub>2</sub>max

/

VO2max

( )

pluse oximeter(Ohmad, 1523)

SPO2 : SPO<sub>2</sub>

K4b<sub>2</sub>

.( )

Softwater analyzer

.( a )

:V-Slope

VCO<sub>2</sub>

VO<sub>2</sub> VCO<sub>2</sub>

x

VO<sub>2</sub> y

.( b ) ( )

RER

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( c ) .

%SPO<sub>2</sub>  
- SPO<sub>2</sub>

matlab 6

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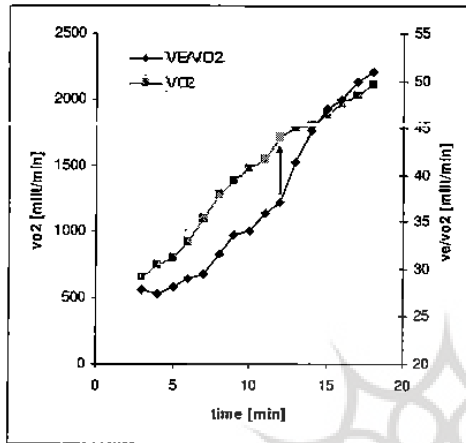
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VO<sub>2</sub>max  
lancet 2000, pistol 2000 ( )  
analyzer (lactate scout, senslab GmbH leipzig)

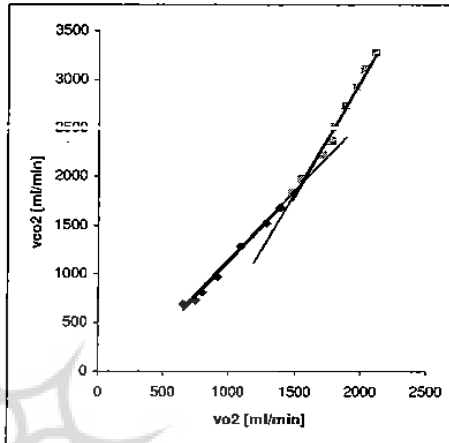
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( e ) .

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۱- برای تعیین این مقدار ابتدا VO<sub>2</sub>max آزمودنی در آزمون تجزیه و تحلیل گازهای تنفسی مشخص شده و ۹۰ درصد این مقدار محاسبه و سپس از روی داده های مربوط به آزمون تجزیه و تحلیل گازهای تنفسی این مقدار در داده های ثبت شده مربوط به VO<sub>2</sub>max مشخص شد . سرعت معادل با این مقدار در آزمون تجزیه و تحلیل گازهای تنفسی به عنوان سرعت شروع در آزمون لاکتات استفاده شد.

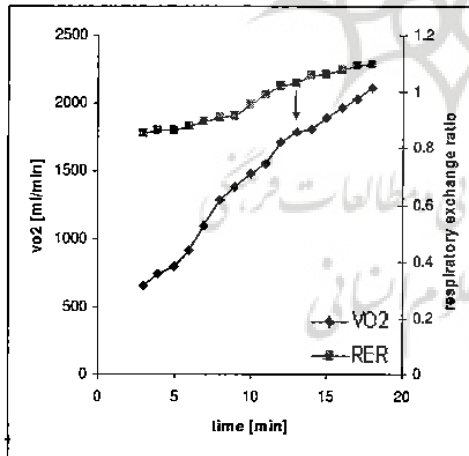


a



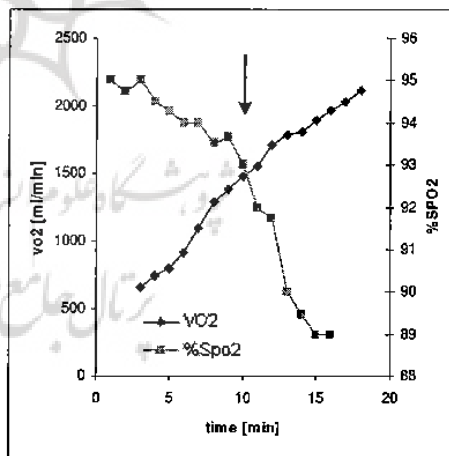
b

V-slope



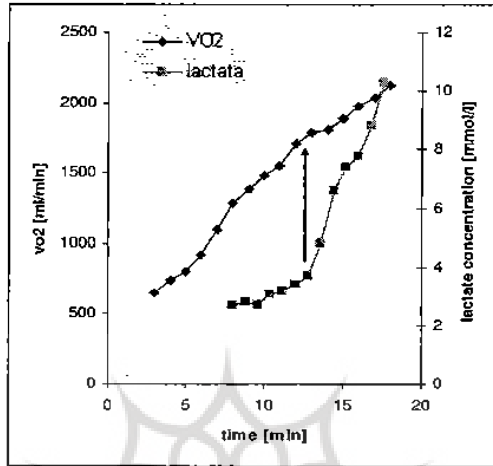
c

RER



d

SPO<sub>2</sub>



: e

/ ± / VO<sub>2</sub>max  
/ ± /

±	( )
۲۴ ± ۱/۰۸۲	( )
۱۷۵/۶ ± ۵/۷۹	( )
۶۸/۹۶ ± ۵/۰۸۲	( )
۹/۴۳ ± ۲/۴۹	( )
۴۵/۴۶ ± ۶/۴۹	(ml/kg/min) Vo <sub>2</sub> max



RER

(P < )

%SPO<sub>2</sub>, V-Slope

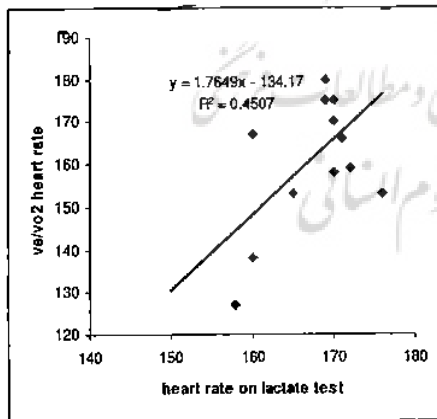
%SPO <sub>2</sub>	V-Slope	VE/VO <sub>2</sub>	RER		
/ ± /	/ ± /	/ ± /	/ ± /	/ ± /	(beat / min)
/ ± /	/ ± /	± /	/ ± /	/ ± /	(ml/min)

±

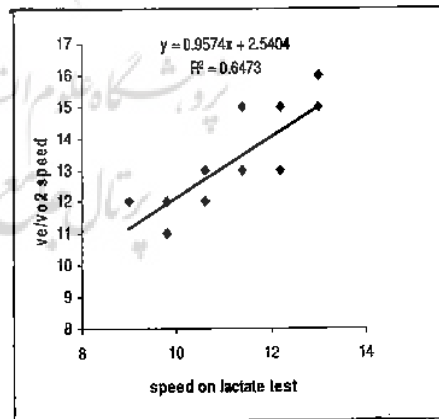
VE/VO<sub>2</sub>

P < . / \ r = . P < / r = . P < . / \ )

(r =



VE/VO<sub>2</sub>

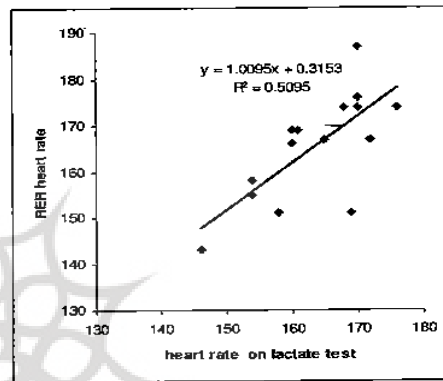
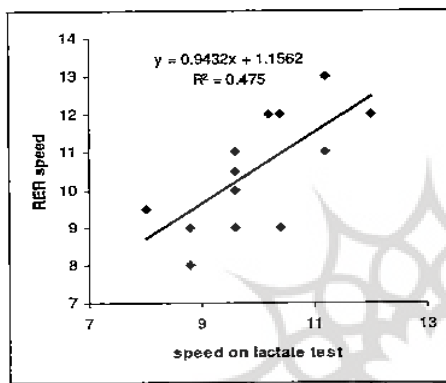


VE/VO<sub>2</sub>

$P < / r = P < / )$

RER

$(r = P < r = P < / r =$

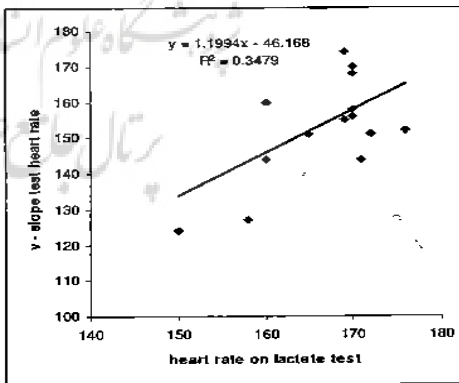
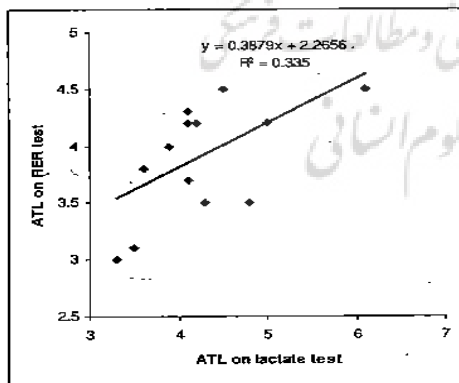


RER

RER

V-Slope

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



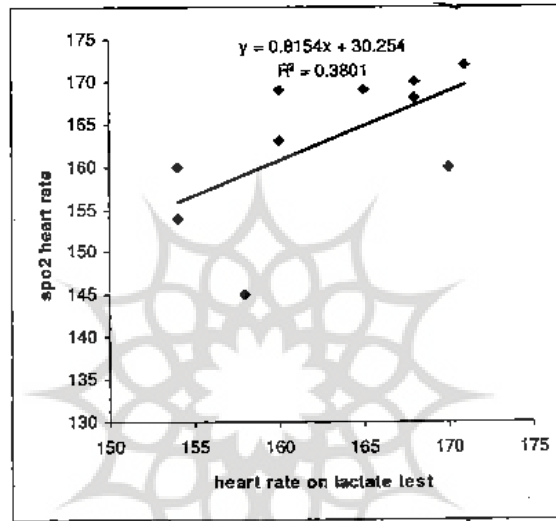
RER

V-Slope

%SPO<sub>2</sub>

r = / r = / P < / r = / P < / )

(P < /



%SPO<sub>2</sub>

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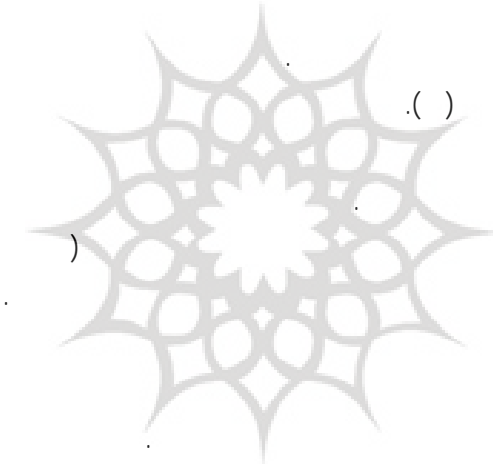
( )

( )

SPO<sub>2</sub>% -

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RER

( )

VO<sub>2</sub>max

VO<sub>2</sub>max

( )

( )

( )

( )

RER

)

(

/

RER  
CO<sub>2</sub>  
VCO<sub>2</sub>/VO<sub>2</sub>

V-Slope

RER

( ) (V-slope )

RER

V-slope

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∕SPO<sub>2</sub>

RER

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