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CT -

AAST-OIS Becker 102 20 II 37 III 21

IV 24 27 III 12 IV 15 K<sup>+</sup>

Na<sup>+</sup> ROC

K<sup>+</sup> Na<sup>+</sup>

K<sup>+</sup> Na<sup>+</sup> K<sup>+</sup>

3.625 mmol/L Na<sup>+</sup> 140.2 mmol/L K<sup>+</sup> 3.625 mmol/L

Na<sup>+</sup> 140.2 mmol/L K<sup>+</sup> Na<sup>+</sup>

$P=0.254$   $P=0.619$   $P=0.206$   $P=0.87$

K<sup>+</sup>  $P<0.05$  Na<sup>+</sup>  $P<0.05$  III IV K<sup>+</sup> Na<sup>+</sup>

$P=0.729$   $P=0.57$  K<sup>+</sup> Na<sup>+</sup>  $P<0.001$   $r=-0.534$

$P<0.001$   $r=-0.504$

K<sup>+</sup> Na<sup>+</sup>

R657.3

20~30%

[1]

55% 75%

[3]

[4]

K<sup>+</sup>

K<sup>+</sup>

K<sup>+</sup> Na<sup>+</sup>

K<sup>+</sup> Na<sup>+</sup>

[2] CT

K<sup>+</sup> Na<sup>+</sup>

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OLYMPUS AU2700

K<sup>+</sup> 3.7~5.4 mmol/L Na<sup>+</sup> 136-145 mmol/L

1.2

[5]	AAST-OIS		Becker		OIS	I	AAST- <10% <1cm II
	I	II	III	IV			
20	37	21	31	24	<10 cm	10%~50%	<10 cm
27	23	4	38±	20	III	>50%	
	13		59	14	>10 cm		>3 cm IV
12	31					25%~75%	
	P=0.90		P=0.053		1~3 Couinaud		
P=0.30			1	0.5~12 h	75%		3 Couinaud /

		1				n=129			t/ <sup>2</sup>	P
		n=102								
		I n=20	II n=37	III n=21	IV n=24	n=27				
		44± 17	36± 18	28± 18	36± 15	38± 20			2.064	0.90
[n % ]		10 50.0	27 73.0	18 85.7	16 66.7	23 85.2			2.407	0.053
		10 50.0	10 27.0	3 14.3	8 33.3	4 14.8				
[n % ]		2 10.0	6 16.2	0 0	2 8.3	3 11.1				
		11 55.0	11 29.7	12 57.1	12 50.0	13 48.2			1.234	0.30
		2 10.0	3 8.1	2 9.5	1 4.2	6 22.2				
		2 10.0	5 13.5	0 0	3 12.5	2 7.4				
		3 15.0	12 32.5	7 33.4	6 25.0	3 11.1				

1.3

SPSS18.0		2	
K-S	±	$\bar{x} \pm s$	2.1
	M	IQR	102
			I 20 19.6%
			(44± 17) II 37 36.3%
			(36± 18) III 21 20.6%
			(28± 18) IV 24 23.5%
t		Mann-	(36± 15) 57 55.9%
Whitney U		ROC	37 64.9%
		Pearson	20 35.1%
	K <sup>+</sup> Na <sup>+</sup>	P<0.05	44.1%
			34 75.6%
			11 24.4%

2.2 K<sup>+</sup> Na<sup>+</sup> P=0.015 P=0.004 P=0.005  
 P=0.001 III IV K<sup>+</sup>  
 I II III IV P<0.001 I II  
 K<sup>+</sup> Na<sup>+</sup> P 0.388 0.150 III IV Na<sup>+</sup>  
 >0.05 K<sup>+</sup> Na<sup>+</sup> P=0.007 P=0.031 P=0.001 P=0.004  
 P 0.62 0.75 >0.05 III IV Na<sup>+</sup>  
 P=0.001 P=0.005 2-3  
 P<0.001 I II III IV K<sup>+</sup> Na<sup>+</sup>  
 K<sup>+</sup> Na<sup>+</sup> P>0.05 P=0.729 P=0.57 4  
 I II III IV K<sup>+</sup>

	2		K <sup>+</sup> Na <sup>+</sup>		mmol/L $\bar{x} \pm s$			
	I	II	III	IV	F	P		
K <sup>+</sup>	4.22± 0.39	4.08± 0.32	4.08± 0.42	3.74± 0.49	7.142	<0.001		
Na <sup>+</sup>	138.94± 2.81	139.40± 3.15	139.07± 2.68	142.07± 4.05	5.408	<0.001		

3	K <sup>+</sup> Na <sup>+</sup>	
	P K <sup>+</sup>	P Na <sup>+</sup>
I		
II	0.954	0.704
III	0.015	0.007
IV	0.004	0.031
	0.254	0.619
II		
III	0.005	0.001
IV	0.001	0.004
	0.206	0.87
III		
IV	0.687	0.512
	<0.001	0.001
IV		
	<0.001	0.005

5	K <sup>+</sup> Na <sup>+</sup>			
	IV	P	r	
K <sup>+</sup>	3.92± 0.47	3.73± 0.54	<0.001	-0.534
Na <sup>+</sup>	140.31± 3.41	141.46± 3.13		

6	K <sup>+</sup> Na <sup>+</sup>			
	III	IV	P	r
K <sup>+</sup>	3.74± 0.54	3.73± 0.54	<0.001	-0.504
Na <sup>+</sup>	142.12± 4.09	141.46± 3.13		

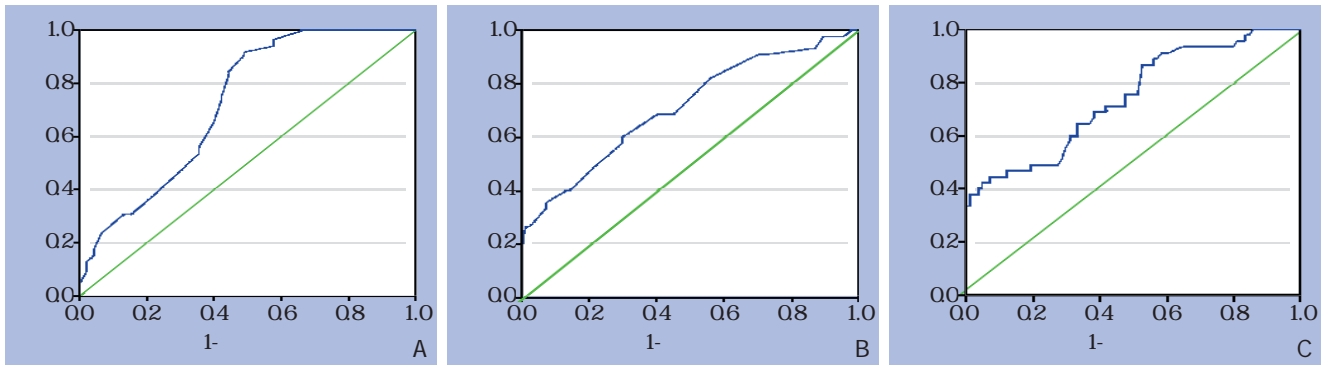
7	K <sup>+</sup> Na <sup>+</sup>			
	I	II	P	r
K <sup>+</sup>	4.07± 0.32	4.08± 0.42	0.003	-0.390
Na <sup>+</sup>	139.40± 3.15	139.07± 2.68		

4	III	IV	P
K <sup>+</sup>	3.74± 0.54	3.73± 0.54	0.729
Na <sup>+</sup>	142.12± 4.09	141.46± 3.13	0.57

2.4 K<sup>+</sup> Na<sup>+</sup> ROC  
 K<sup>+</sup> ROC  
 0.721 P<0.001 91.66%  
 51.12% Na<sup>+</sup> ROC  
 0.712 P<0.001 60%

2.3 K<sup>+</sup> Na<sup>+</sup>  
 K<sup>+</sup> Na<sup>+</sup>  
 P<0.001 r=- 0.534  
 P<0.001 r=- 0.504  
 P=0.003 r=- 0.390 5-7

70.24% K<sup>+</sup> Na<sup>+</sup>  
 ROC 0.742 P<0.001  
 44.4% 92.9% 1  
 ROC K<sup>+</sup> Na<sup>+</sup>  
 3.625 mmol/L 140.2 mmol/L



1 K<sup>+</sup> Na<sup>+</sup> ROC A K<sup>+</sup> B Na<sup>+</sup> C K<sup>+</sup> Na<sup>+</sup>

3

cAMP

Na<sup>+</sup>-K<sup>+</sup>

[12-13]

Glisson

[6]

Na<sup>+</sup>-K<sup>+</sup>-ATP  
Na<sup>+</sup>-K<sup>+</sup>

Na<sup>+</sup>-K<sup>+</sup>-ATP  
3 K<sup>+</sup> 2 Na<sup>+</sup>

[7]

K<sup>+</sup>

Sevier-M unger

Na<sup>+</sup>

K<sup>+</sup>

Na<sup>+</sup>

K<sup>+</sup> Na<sup>+</sup>

K<sup>+</sup>

K<sup>+</sup>

K<sup>+</sup>

Na<sup>+</sup>

Na<sup>+</sup>

Na<sup>+</sup>

Stoyanova [8]

K<sup>+</sup> Na<sup>+</sup>

Na<sup>+</sup>-K<sup>+</sup>

[4]

Gardemann [9]

IV

K<sup>+</sup>

K<sup>+</sup> Na<sup>+</sup>

III

neurorrspicifrendolase,

NSE

60%

Miyazawa [10]

S-100

NSE

K<sup>+</sup>

[11-12]

[14-16]

[14-16]

K<sup>+</sup> 3.625 mmol/L Na<sup>+</sup>  
 140.2 mmol/L  
 [16- 17]  
 Na<sup>+</sup> K<sup>+</sup>  
 [18- 19]  
 100%<sup>[20- 21]</sup>  
 alanine aminotransferase  
 aspartate aminotransferase  
 ALT ALT  
 AST ALT  
 AST Lactate dehydrogenase  
 LDH  
 ALT AST 2  
 93.1% 38.5%<sup>[22]</sup>  
 K<sup>+</sup> 3.625 mmol/L  
 91.66% 51.12%  
 Na<sup>+</sup> 140.2 mmol/L  
 60% 70.24% K<sup>+</sup> Na<sup>+</sup>  
 44.4%  
 92.9%  
 ROC K<sup>+</sup> Na<sup>+</sup>  
 K<sup>+</sup> Na<sup>+</sup>  
 K<sup>+</sup> 3.625 mmol/L Na<sup>+</sup> 140.2 mmol/L  
 ALT AST 2

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