

// ()

D

*

D

D

()

25-OH-D

D3 IU/d

D

(FBS) (BMI)

25-OH-D C

D

E,C

(% /)

/ ± / ng/ml 25-OH-D

%

(25-OH-D < 20 ng/ml) D

D

C

D

(P < /)

/ ± / ng/ml

/ ± / ng/ml

(P < /)

D

QUICKI

D

(P < /)

D

().

D3 (IU/d)

D () .

D

Boquist

()

D

D

.() D

D

(IU/d) D (D) D

.()

D

D

.()

D

()

()

D

.()

mg/dl

mg/dl D

()

) D

D

.()

D

C E

(

D

| | | | | |
|---|----------------------|-------------------------|-------------------|---------|
| | | | | |
| D | C E |) | (| |
| |) | | (| BMI |
| D | | seca | seca | |
| (|) | / | | |
| | | (BMI) | | |
| | | | (m ²) | |
| | | | | (kg) |
| | | | cc | |
| Food Processor | | | | |
| D | | °C | | °C |
| | | | | |
| D | | | | °C |
| | | | | |
| Food Processor | | (Pars Azmoon kit) | | |
| D | | | | |
| Food Processor | ELISA (IRMA) | | | |
| D | (RIA) | | | |
| | | C | | |
| | | | | |
| Food Processor | | (BioSource Europe S.A) | | |
| D | | | | |
| | | D3 | | |
| | | | | |
| D | | (Biosource Europe S.A.) | | |
| | | | | |
| Krause's Food, Nutrition and Diet Therapy | | | | |
| D |) (2004) | D | ng/ml | 25-OH-D |
| (| | D | | ng/ml |
| | | | | |
| | SPSS | ng/ml | 25-OH-D | |
| | | | | |
| | | () | D | |
| XP | SPSS (Version 11.05) | / / | mg/d | |
| | | / mg/dl | | |
| | | | | |
| | | () | | |

t
 t
 $)$
 $($
 $t \pm t$ BMI

(ANOVA for repeated measurement)

D

McNemar

(n =)

| P-Value | D | (n =) | (n =) | () |
|---------|-------|--------|--------|--------------------------|
| / | / ± / | / ± / | / ± / | () |
| / | / ± / | / ± / | / ± / | () |
| / | / ± / | / ± / | / ± / | (kg) |
| / | / ± / | / ± / | / ± / | (Cm) |
| / | / ± / | / ± / | / ± / | BMI (kg/m ²) |

| | | |
|---|-------|-------|
| / | () | (/) |
| | () | (/) |
| / | (/) | (/) |
| | (/) | (/) |
| / | (/) | (/) |
| | (/) | (/) |

)

D

(

| | | |
|---|-------|-------|
| / | (/) | (/) |
| | (/) | (/) |

D,C,E

| | | |
|---|-----|-------|
| / | () | (/) |
| | () | (/) |

()

| | | |
|---|-------|-------|
| / | (/) | (/) |
| | (/) | (/) |

(P < /)

| | | |
|---|-----|-----|
| / | () | () |
| | () | () |

t : † t

D

D,C,E

()

(n =)

| گروه دارونما (n = ۲۷) | | | گروه مکمل ویتامین D (n = ۳۰) | | |
|-----------------------|---------|----------------|------------------------------|----------|-----------------------------|
| (| ± |) | (| ± |) |
| [‡] | | | [‡] | | |
| / ± / | / ± / | ۹/۴۵ ± ۰/۲۱ | / ± / | / ± / | ۹/۴۶ ± ۰/۴۰ |
| / ± / | / ± / * | ۱۴/۲۴ ± ۱۱/۷۷ | / ± / ^c | / ± / ** | / ± / ^a |
| / ± / | / ± / | ۱۵۱/۴۳ ± ۵۷/۸۱ | / ± / | / ± / | ۱۸۷/۹۷ ± ۶۱/۲۴ ^b |
| / ± / | / ± / | ۲۲/۴۳ ± ۴۱/۹۵ | / ± / | / ± / | ۲۲/۴۳ ± ۴۱/۹۵ |
| / ± / | / ± / | ۲/۶۹ ± ۱/۰ | / ± / | / ± / * | ۲/۴۷ ± ۰/۸۸ |
| / ± / | / ± / | ۰/۳۱ ± ۰/۰۳۲ | / ± / ^d | / ± / ** | ۰/۳۰ ± ۰/۰۳۴ |
| QUICKI | | | | | |
| | | | [‡] | | |
| D | | | / | P | * |
| 25-OH-D | | | / | P | ** |
| 25-OH-D | | | / | P | ^a |
| QUICKI | | | / | P | ^b |
| | | | / | P | ^c |
| | | | / | P | ^d |

C

D

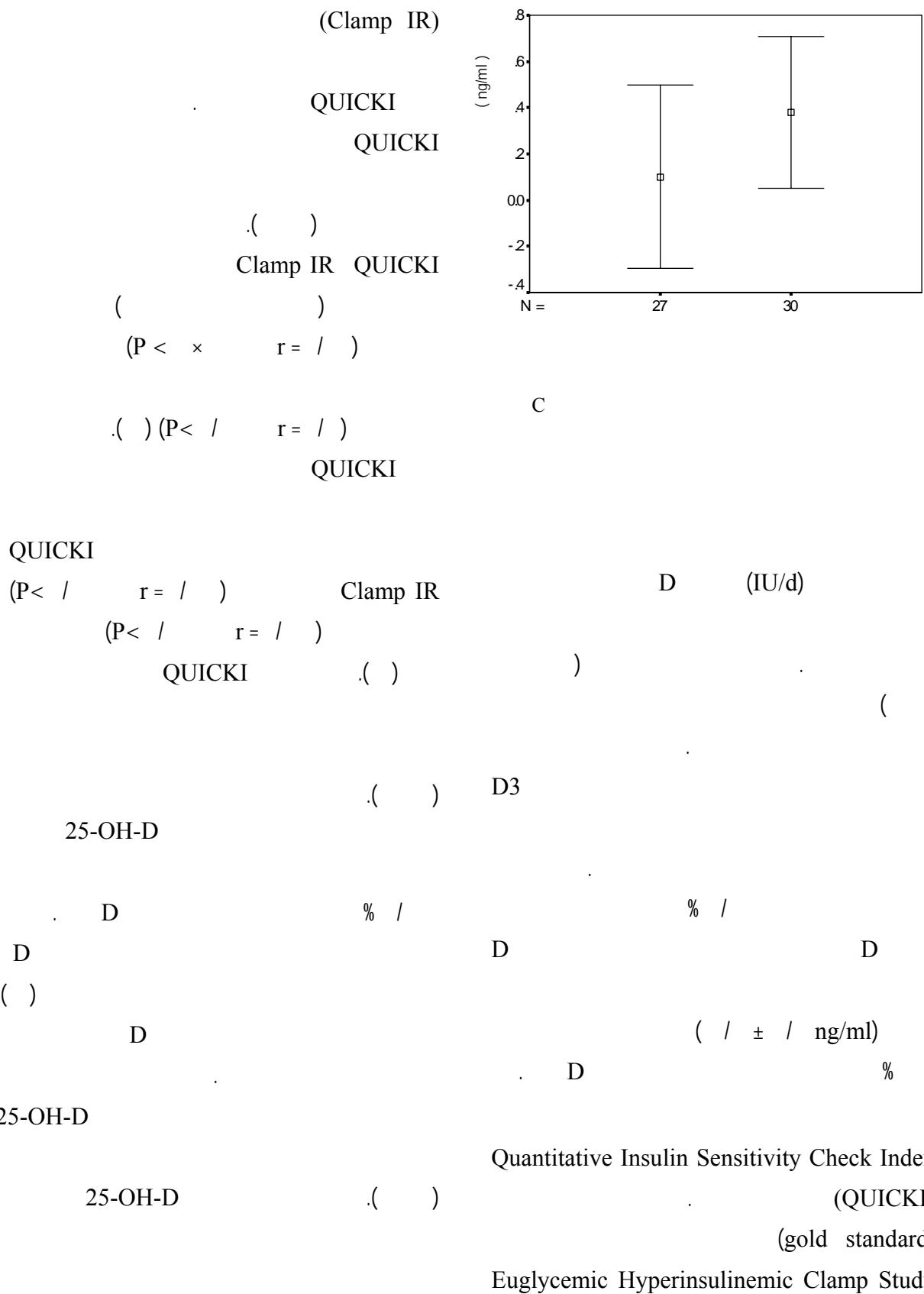
()

QUICKI

C

(n=)

| D | | | | D | | D | |
|-----|-----|---------|-------|---|---|---|---|
| D | D | D | D | D | | D | |
| () | () | (/) | (/) | D | | D | |
| () | () | (/) | (/) | D | | D | |
| / * | | / | † (P) | D | | D | |
| D | | McNemar | | / | p | * | † |



| | | (IDDM) | |
|------------------|----------------------------|-----------|-----------|
| () | (D) | VDR | 25-OH-D |
| . | . | . | () |
| . | () | | 25-OH-D |
| | D | | () |
| (CaBP) D | Calbindin C _{K28} | | 1,25-OH-D |
| | . | . | () |
| | D | | 1,25-OH-D |
| | . | . | / |
| | D | . | |
| 25-OH-D | | 25-OH-D | - |
| D | | 1,25-OH-D | () |
| / ± / ng/ml | / ± / ng/ml | 25-OH-D | |
| (%) | | . | () |
| 25-OH-D | | D | 1,25-OH-D |
| (%) / ± / ng/ml | | D | |
| | | D | |
| | | D | |
|) | 25-OH-D | D | |
| . | (| IGT | |
| D | | . | () |
| () | | 1,25-OH-D | D |
| 25-OH-D | | D | |

D D

() Orwoll

()
()

()

1,25-OH-D

D

1,25-OH-D

()

D

IU

() Roghuramula

()

D

OGTT

Boucher

D

()

Boucher

() Borissova

"specific insulin"

IVGTT OGTT

D

() Roghuramula

OGTT

() Borissova

IVGTT

D

C

()

IU

C

()

C

() Boucher

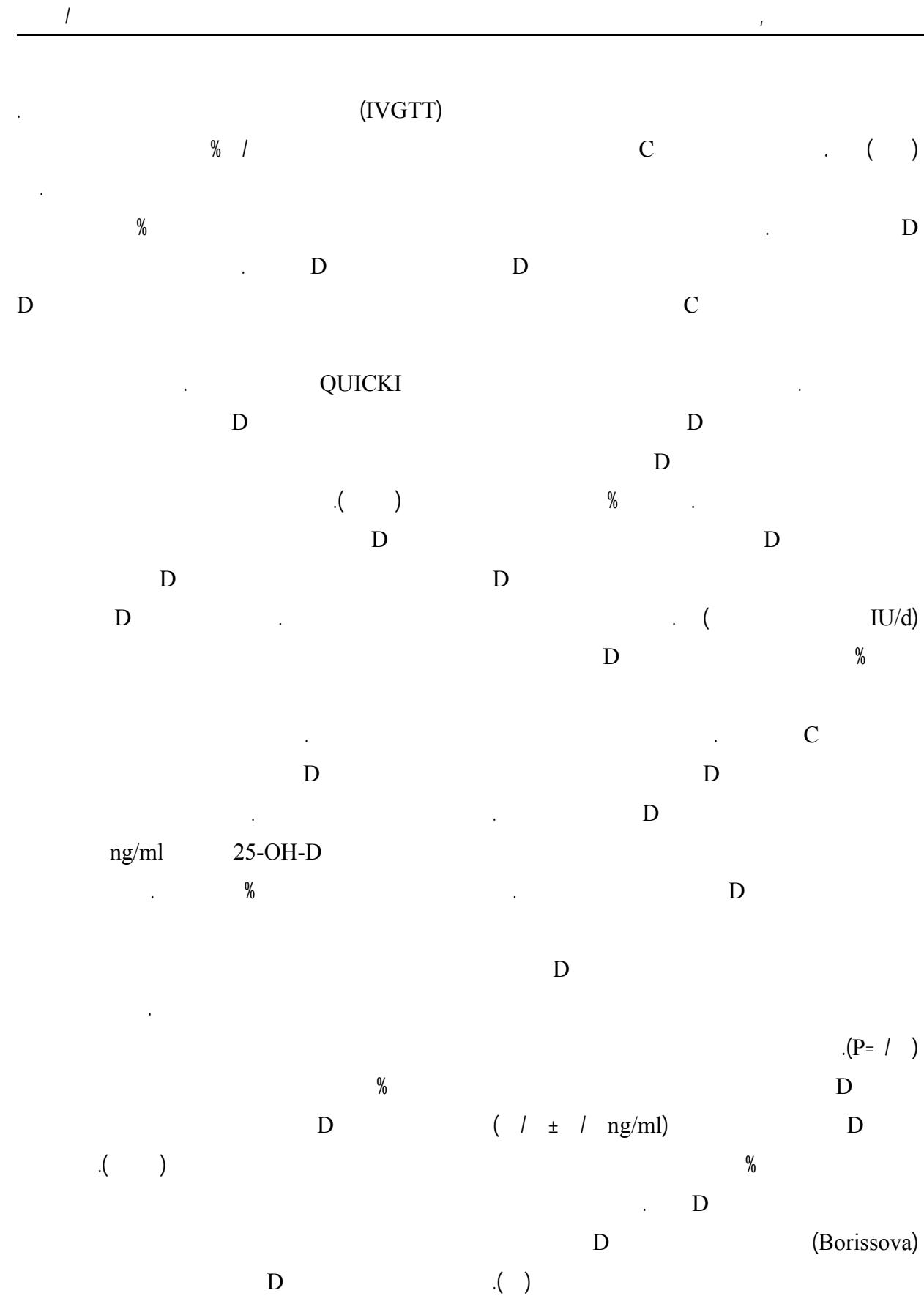
D

IU

IGT

() Orwoll

()



C

D

D

D

25-OH-D

D

D

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