

OGTT 30-60-90-120

ראת סג'יר המ

הימה אס'יל-אילו
ק'ינורית קפ'ירית RD
הזהה ה-ה-בז'ו-ה-בז'

קורס האקס'יל-ה-יל-ה-ל-ה-
ר'ונ'אנ' 2015

לחת מכל הנשימנה



CF

Hyperglycemia in CF

•••• ORANGE 10:12 94% ncbi.nlm.nih.gov

PubMed hyperglycemia in cystic fibrosis

FILTER: None

SORT: Most recent

Search Results 175 items

Quantitative vitreous fluorophotometry in insulin-treated cystic fibrosis patients.
Rodman HM, et al. Diabetes. 1983
Full text

[Blood sugar in pancreatic diseases].
Klapdor R, et al. Dtsch Med Wochenschr. 1983. Article in German.
Full text

Insulin receptors in cystic fibrosis: increased receptor number and altered affinity.
Lippe BM, et al. Pediatrics. 1980
Full text

Pancreatic alpha and beta cell functions in cystic fibrosis.
Lippe BM, et al. J Pediatr. 1977

Cystic fibrosis of the pancreas.
Hsia DY, et al. Adv Cardiol. 1966

Previous Page 18 of 18

•••• ORANGE 10:10 95% ncbi.nlm.nih.gov

PubMed hyperglycemia in cystic fibrosis

FILTER: None

SORT: Most recent

Search Results 175 items

The course of glucose intolerance in children with cystic fibrosis: a retrospective study - preliminary report.
Piechowiak K, et al. Dev Period Med. 2015

Deleterious impact of hyperglycemia on cystic fibrosis airway ion transport and epithelial repair.
Bilodeau C, et al. J Cyst Fibros. 2015
Full text

Insulin secretion abnormalities in exocrine pancreatic sufficient cystic fibrosis patients.
Wooldridge JL, et al. J Cyst Fibros. 2015
Full text

Insulin resistance, β-cell dysfunction and differences in curves of plasma glucose and insulin in the intermediate points of the standard glucose tolerance test in adults with cystic fibrosis.
Cano Megias M, et al. Endocrinol Nutr. 2015. Article in English, Spanish.

INDET in cystic fibrosis

ncbi.nlm.nih.gov found 1870 results for index in cystic fibrosis.

Characterization of patients with cystic fibrosis presenting an indeterminate glucose tolerance (INDET).
Coriati A, et al. J Cyst Fibros. 2015
[Full text](#)

Insulin resistance, β-cell dysfunction and differences in curves of plasma glucose and insulin in the intermediate points of the standard glucose tolerance test in adults with cystic fibrosis.
Cano Megias M, et al. Endocrinol Nutr. 2015. Article in English, Spanish.
[Full text](#)

Predictors for future cystic fibrosis-related diabetes by oral glucose tolerance test.
Schmid K, et al. J Cyst Fibros. 2014
[Full text](#)

[Abnormal glucose tolerance in prepubertal patients with cystic fibrosis].
Martin-Frias M, et al. An Pediatr (Barc). 2012. Article in Spanish.
[Full text](#)

Elevation of 1-hour plasma glucose during oral glucose tolerance testing is associated with worse pulmonary function in cystic fibrosis.
Brodsky J, et al. Diabetes Care. 2011
[Full text](#)

ncbi.nlm.nih.gov

PubMed INDET in cystic fibrosis

FILTER: None

SORT: Most recent

Search Results 5 items

Characterization of patients with cystic fibrosis presenting an indeterminate glucose tolerance (INDET).
Coriati A, et al. J Cyst Fibros. 2015
[Full text](#)

Insulin resistance, β-cell dysfunction and differences in curves of plasma glucose and insulin in the intermediate points of the standard glucose tolerance test in adults with cystic fibrosis.
Cano Megias M, et al. Endocrinol Nutr. 2015. Article in English, Spanish.
[Full text](#)

Predictors for future cystic fibrosis-related

< >

Classification of Glucose Tolerance in CF (December 2010)

TABLE 1—Classification of Glucose Tolerances in CF

OGTT category	Fasting glucose (mg/dl)	1-hr glucose (mg/dl)	2-hr glucose (mg/dl)
Normal glucose tolerance (NGT)	<100		<140
Impaired fasting glucose (IFG)	100–125		Not applicable
Impaired glucose tolerance (IGT)	<100		140–199
Indeterminate glucose tolerance (INDET)	<100	≥200	<140
CFRD ¹	≥126		≥200

¹CFRD can be diagnosed with a fasting glucose level ≥126 mg/dl and/or a 2-hr glucose level ≥200 mg/dl.

Pediatric Pulmonology



Journal of Cystic Fibrosis xx (2015) xxx–xxx

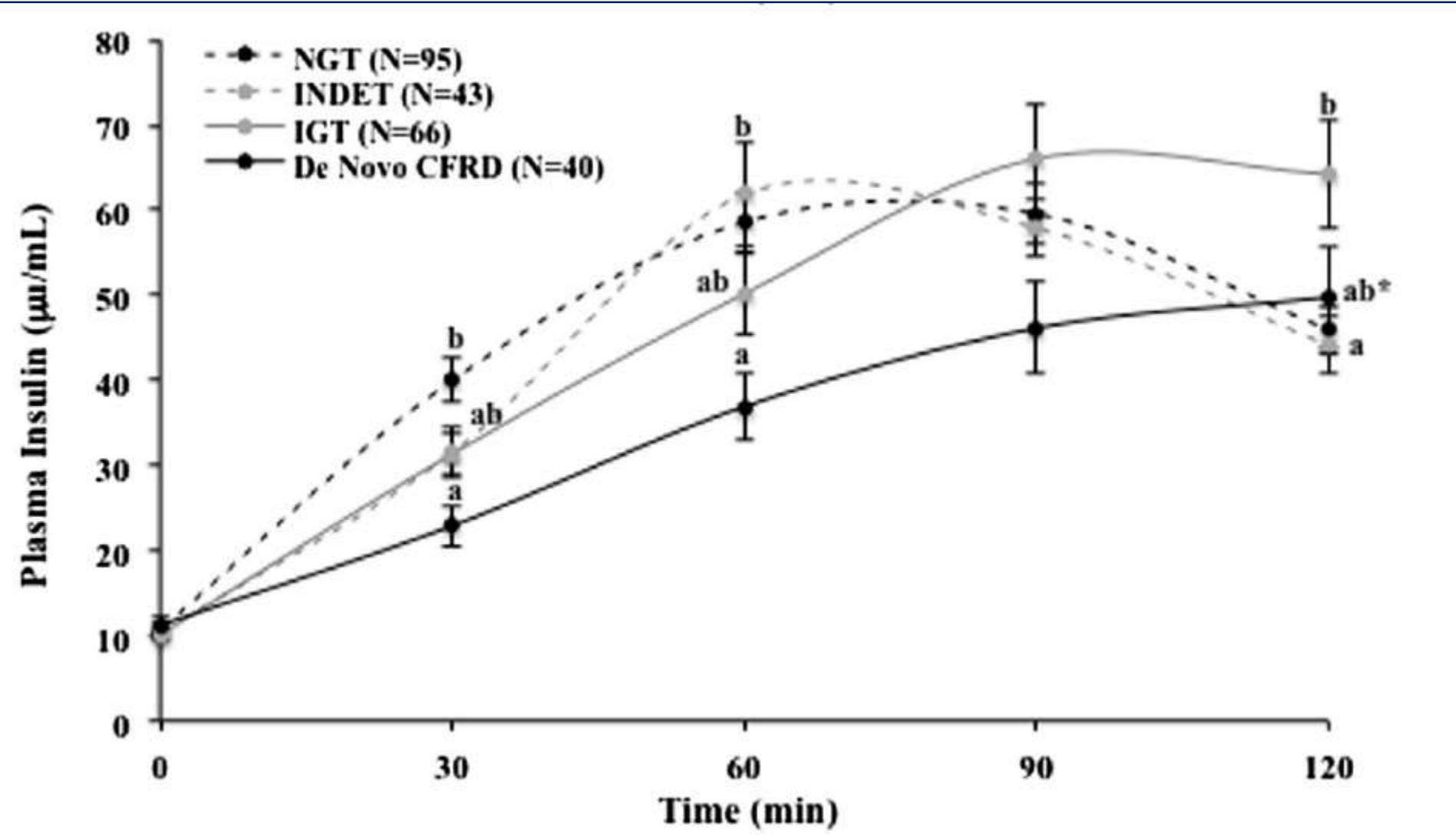
Journal of **Cystic
Fibrosis**
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Original Article

Characterization of patients with cystic fibrosis presenting an indeterminate glucose tolerance (INDET)

Adèle Coriati ^{a,b}, Sophie Ziai ^{a,b}, Mirna Azar ^d, Yves Berthiaume ^{a,c,d}, Rémi Rabasa-Lhoret ^{a,b,c,d,*}

Plasma Glucose (mmol/L)



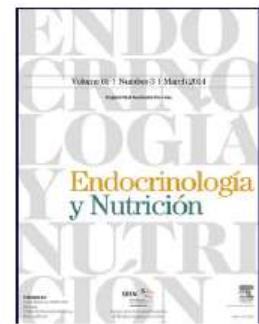
Characteristics

	Total (N = 252)	NGT (N = 99)	INDET (N = 45)	IGT (N = 66)	De novo CFRD (N = 42)	P value
Sex (% women)	46.4	46.5	35.6	59.1	38.1	0.056
Age (years)	25.9 ± 7.9	25.4 ± 7.3	26.4 ± 10.2	25.5 ± 7.4	27.1 ± 7.1	0.629
Weight (kg)	60.2 ± 11.1	61.1 ± 11.2	60.4 ± 11.5	59.4 ± 11.2	59.3 ± 10.3	0.723
BMI (kg/m ²)	21.8 ± 3.0	21.9 ± 2.9	21.6 ± 2.7	21.8 ± 3.2	21.4 ± 3.1	0.813
FEV ₁ (%)	72.9 ± 21.4	75.9 ± 20.6 ^a	66.6 ± 21.2 ^b	75.6 ± 21.1 ^a	67.6 ± 22.7 ^b	0.038
CRP (mg/L)	6.3 ± 7.0	5.7 ± 7.9	8.3 ± 6.4	5.7 ± 6.6	6.8 ± 6.0	0.279
Pancreatic enzyme (% yes)	80.8	73.5	77.8	83.3	97.6	0.010 *
ΔF508 homozygous (%)	46.4	44.9	48.9	44.4	50.0	0.841 *
ΔF508 heterozygous (%)	41.9	41.8	40.0	41.3	45.2	
Others	11.7	13.3	11.1	14.3	4.8	
NGSP-HbA1c (%)	5.8 ± 0.6	5.5 ± 0.4 ^a	5.7 ± 0.4 ^a	5.7 ± 0.5 ^a	6.4 ± 0.8 ^b	≤0.001
IFCC-HbA1c (mmol/mol)	40	37	39	39	46	
Fasting plasma glucose (mmol/L)	5.5 ± 0.8	5.2 ± 0.4 ^a	5.5 ± 0.5 ^b	5.3 ± 0.7 ^{ab}	6.4 ± 1.2 ^c	≤0.001
Fasting plasma insulin (μU/mL)	10.7 ± 5.1	10.9 ± 5.4	10.4 ± 4.7	10.2 ± 4.7	11.3 ± 5.7	0.702
1 h-OGTT plasma glucose (mmol/L)	11.3 ± 3.1	8.8 ± 1.4 ^a	12.8 ± 1.5 ^b	11.7 ± 2.0 ^c	15.1 ± 3.5 ^d	≤0.001
1 h-OGTT plasma insulin (μU/mL)	53.3 ± 36.1	58.6 ± 34.4 ^a	61.8 ± 39.4 ^a	50.2 ± 38.6 ^{ab}	36.9 ± 25.7 ^b	0.004
2 h-OGTT plasma glucose (mmol/L)	8.1 ± 3.3	5.7 ± 1.1 ^a	6.3 ± 1.0 ^a	9.1 ± 0.9 ^b	13.9 ± 2.7 ^c	≤0.001
2 h-OGTT plasma insulin (μU/mL)	51.2 ± 37.4	46.0 ± 27.8 ^a	44.1 ± 22.2 ^a	64.3 ± 51.7 ^b	49.8 ± 37.9 ^{ab}	0.009
Insulin sensitivity index	0.074 ± 0.030	0.088 ± 0.020 ^a	0.086 ± 0.016 ^a	0.064 ± 0.025 ^b	0.041 ± 0.026 ^c	≤0.001



ENDOCRINOLOGÍA Y NUTRICIÓN

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ORIGINAL ARTICLE

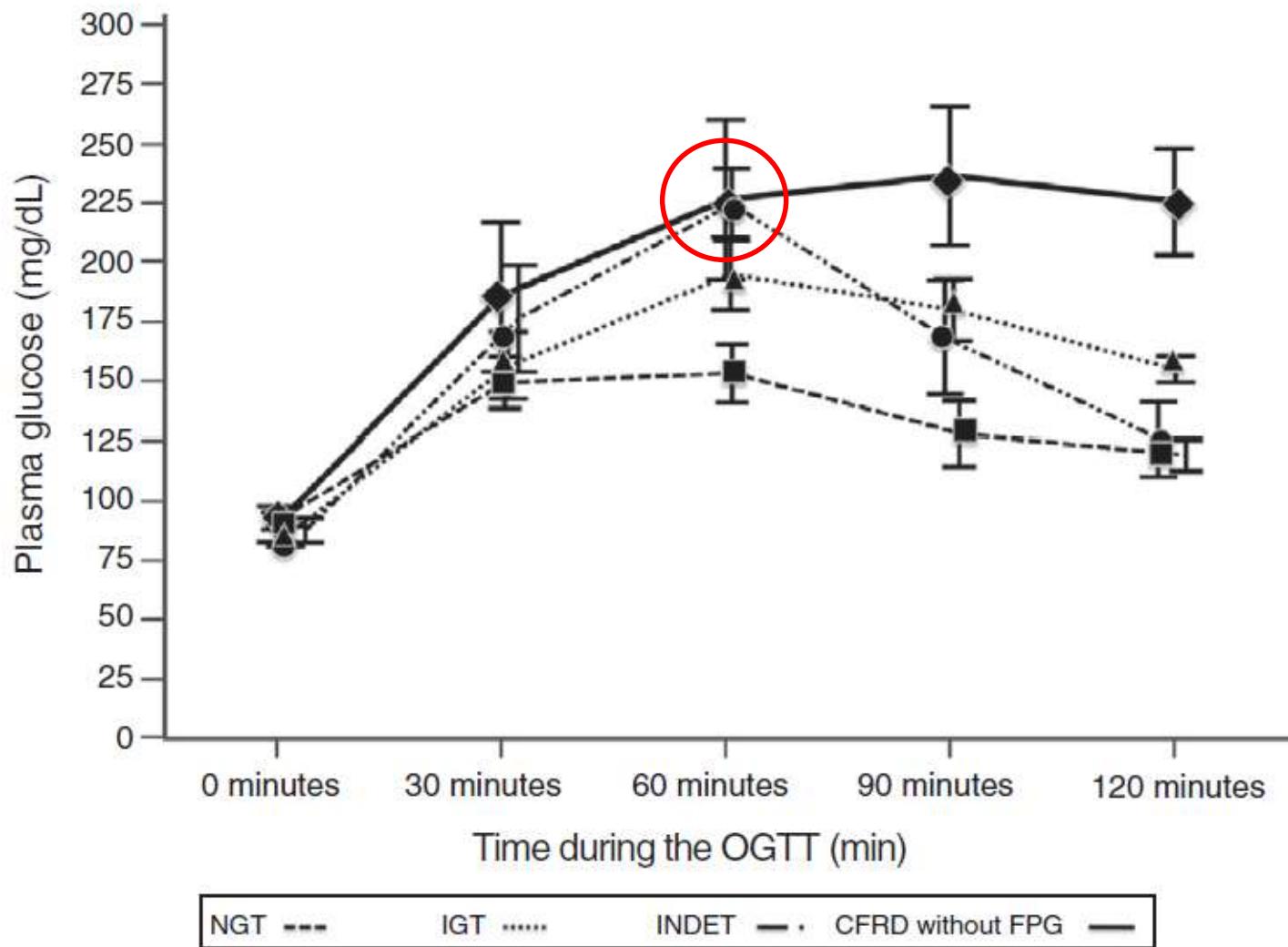
Insulin resistance, β -cell dysfunction and differences in curves of plasma glucose and insulin in the intermediate points of the standard glucose tolerance test in adults with cystic fibrosis[☆]



CrossMark

Marta Cano Megías ^{a,*}, Olga González Albarrán ^a, Pablo Guisado Vasco ^b, Adelaida Lamas Ferreiro ^c, Luis Máiz Carro ^d

Plasma Glucose (mg/dL)



Characteristics

Table 1 Clinical, genetic, and lung function characteristics of patients undergoing oral glucose tolerance test and with blood glucose disorders related to cystic fibrosis.

	No.	Patients (%)	Mean (SD)
<i>Age at study entry (years)</i>	63		26.8 (9.5)
<i>Age at diagnosis of cystic fibrosis (years)</i>	61		1 ($I_{p25-p75}$ 5.5) ^a
<i>Sex</i>	64		
Male		36 (56.25)	
Female		28 (43.75)	
<i>Mutational status ΔF508</i>	64		
Heterozygous		48 (75)	
Homozygous		15 (23.4)	
Unknown		1 (1.6)	
<i>Normal glucose tolerance (NGT)</i>	60	16 (26.7)	
<i>Cystic fibrosis-related diabetes with no impaired basal blood glucose (CFRD without FPG)</i>	60	11 (18.3)	
<i>Indeterminate tolerance (INDET)</i>	60	6 (10)	
<i>Carbohydrate intolerance (IGT)</i>	60	27 (45)	
<i>Lung disease</i>	62	61 (98.4)	
<i>Exocrine pancreatic disease</i>	62	46 (74.2)	
<i>BMI</i>	61		20.3 (3.3)
<i>Total FEV1 (%)</i>	61		69.5 (20.4)
<i>FVC %</i>	61		75.1 (19)

^a Median and IQR.



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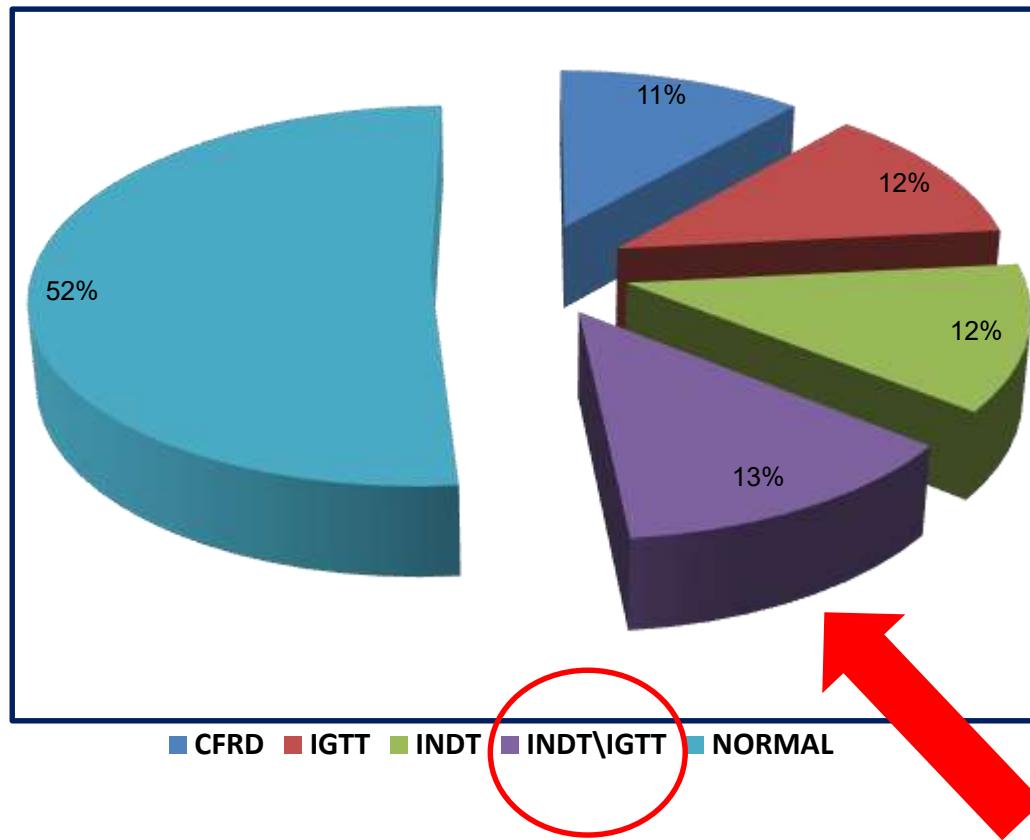
- 235 הנסות סיכם
- 108 נוכחות יא
- 116 כימיקלים (NN: 8-41 כיריך)
- 95% - PI
- OGTT סוכר



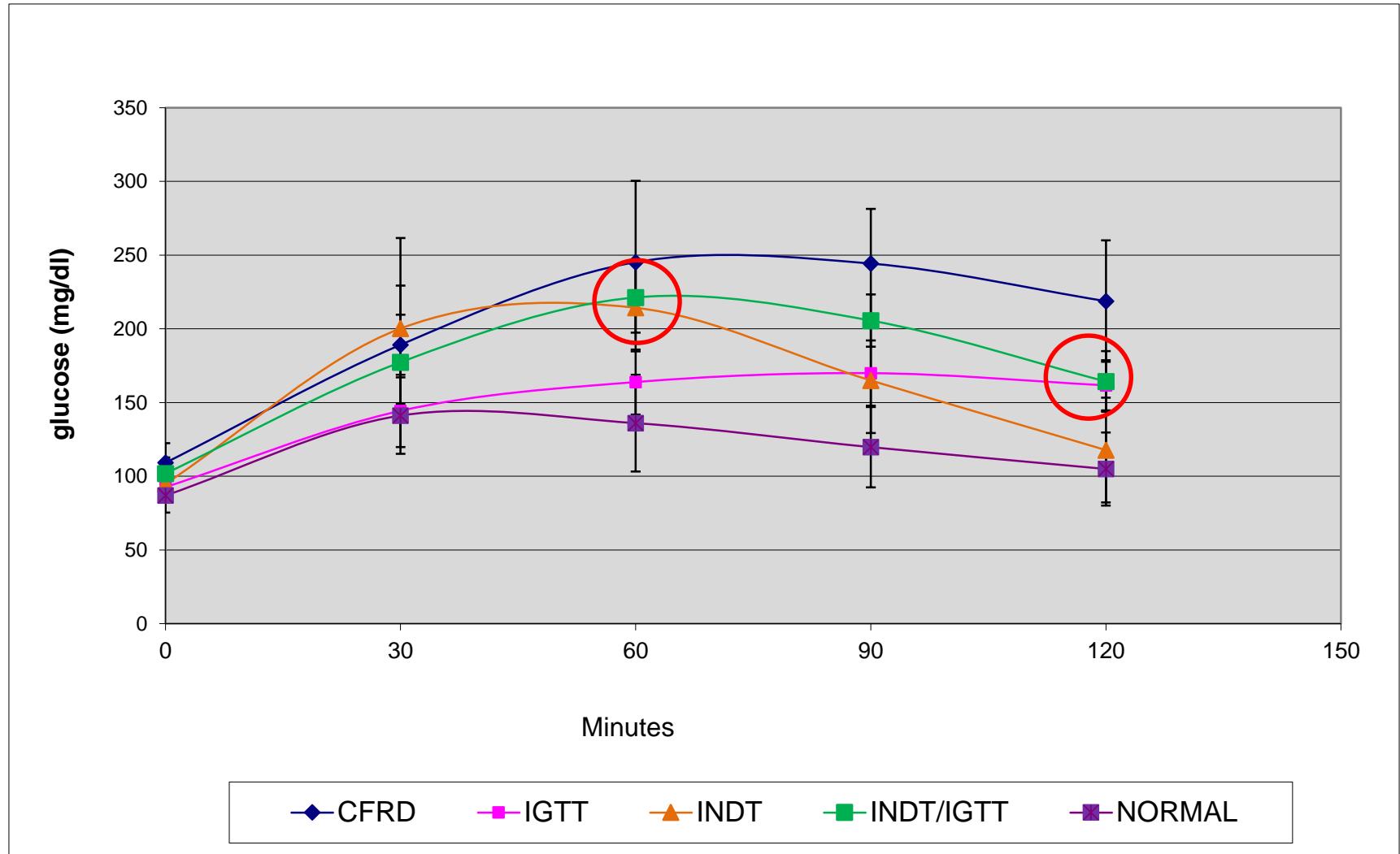
Statistics

- Multiple Variance Analysis - Primer
- Dunnett test + Turkey test
(+Bonferroni)
- Mean + SD

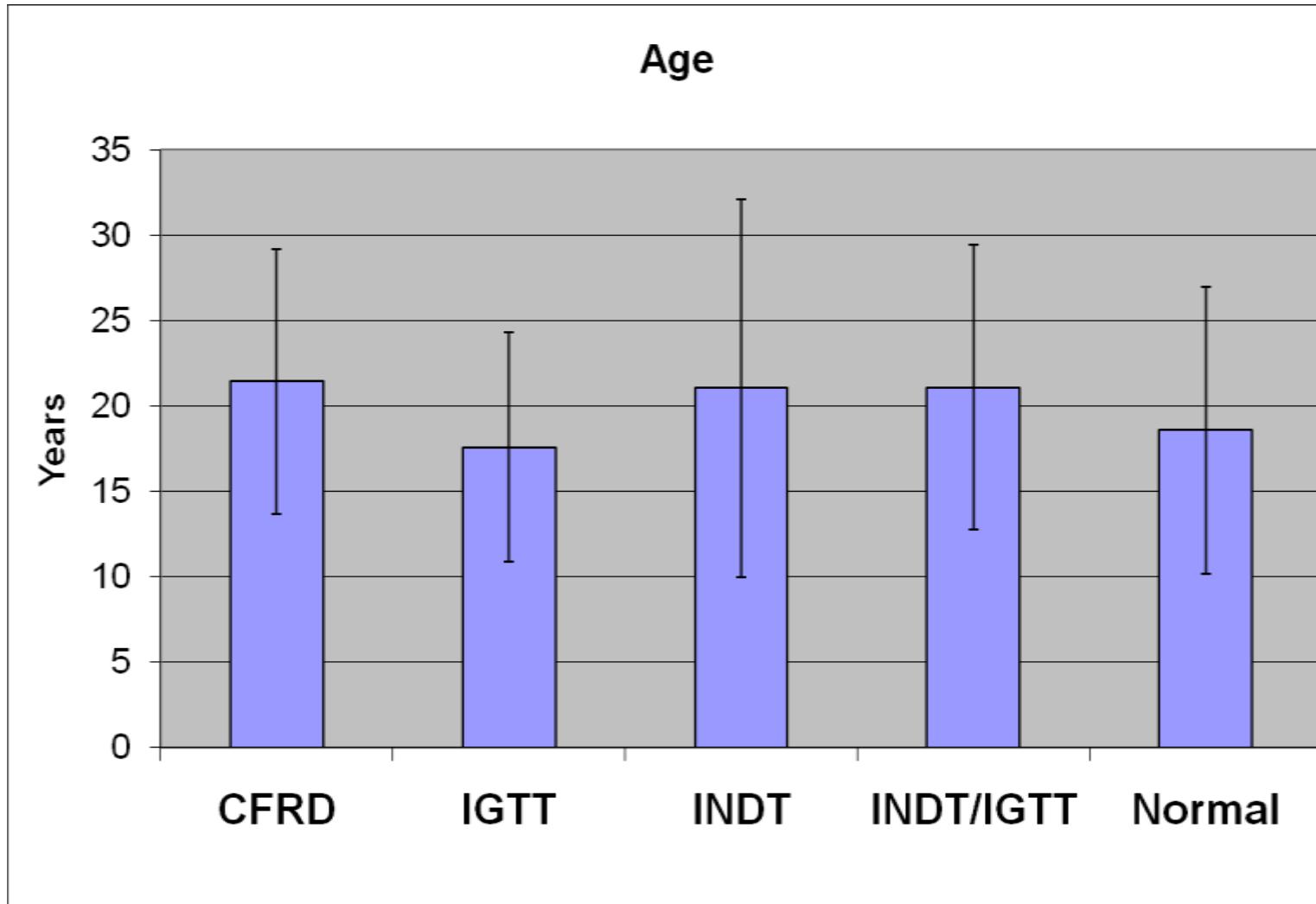
Prevalence by OGTT Categories



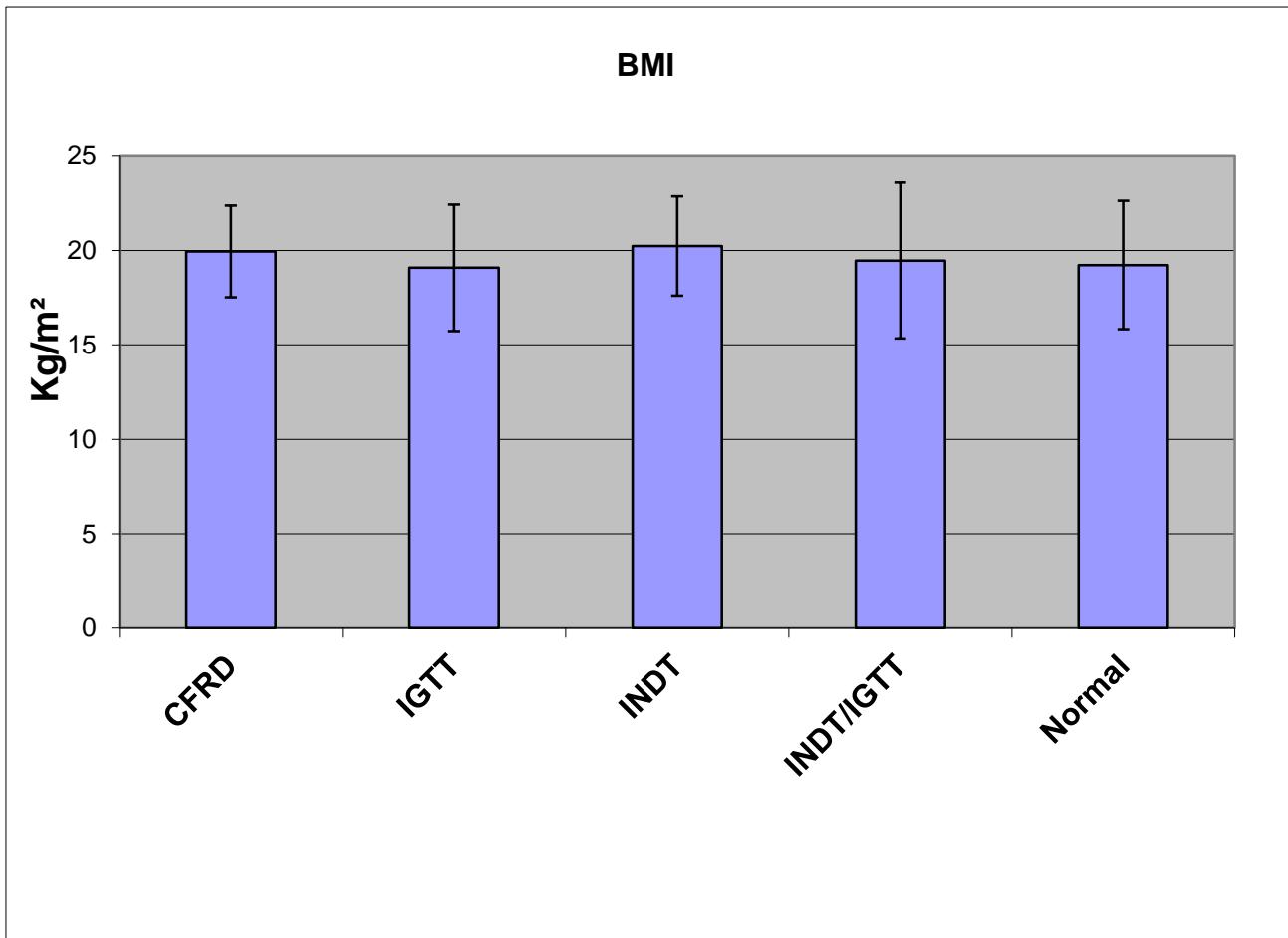
Glucose Concentration (mg/dl)



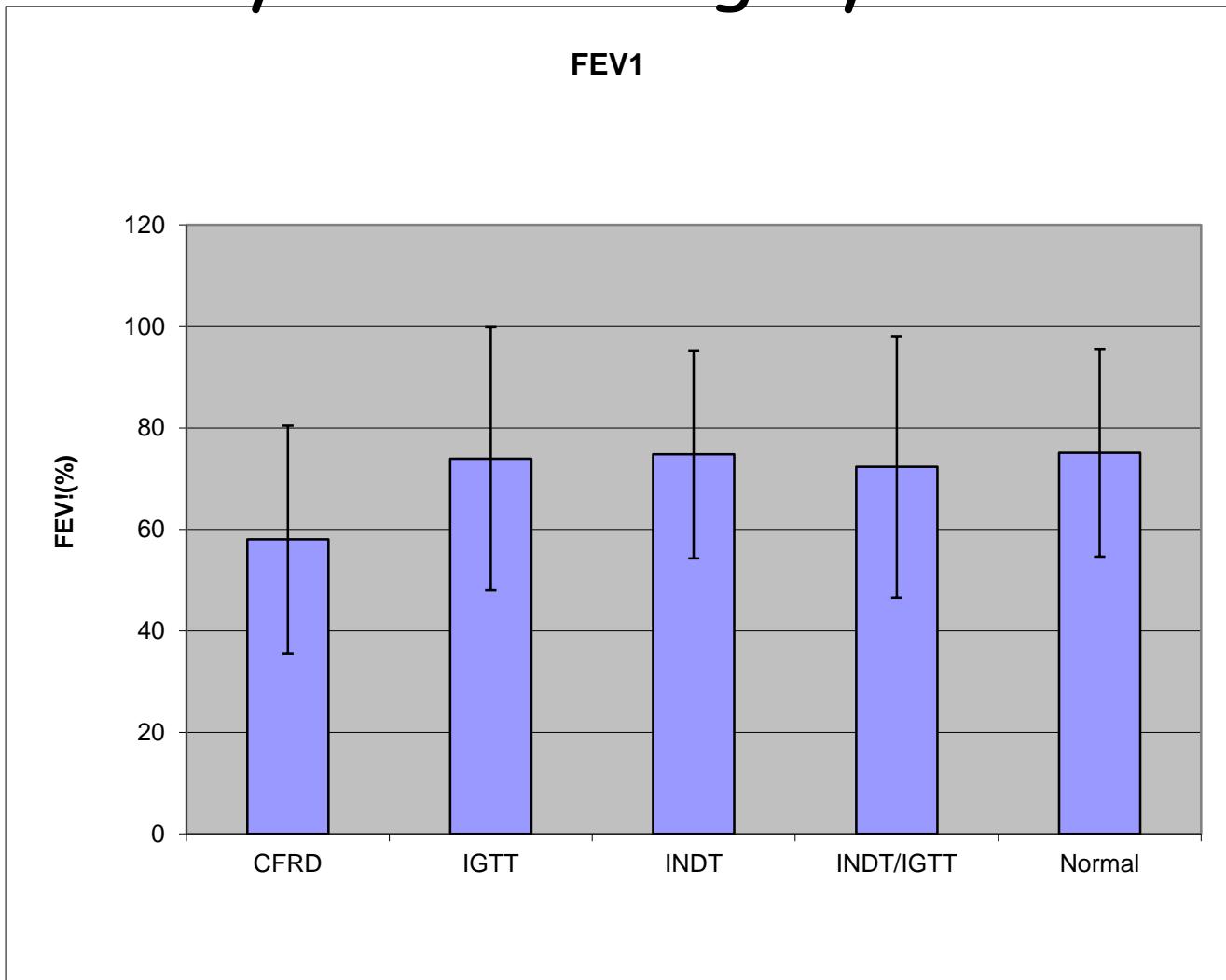
Mean Age by OGTT Category



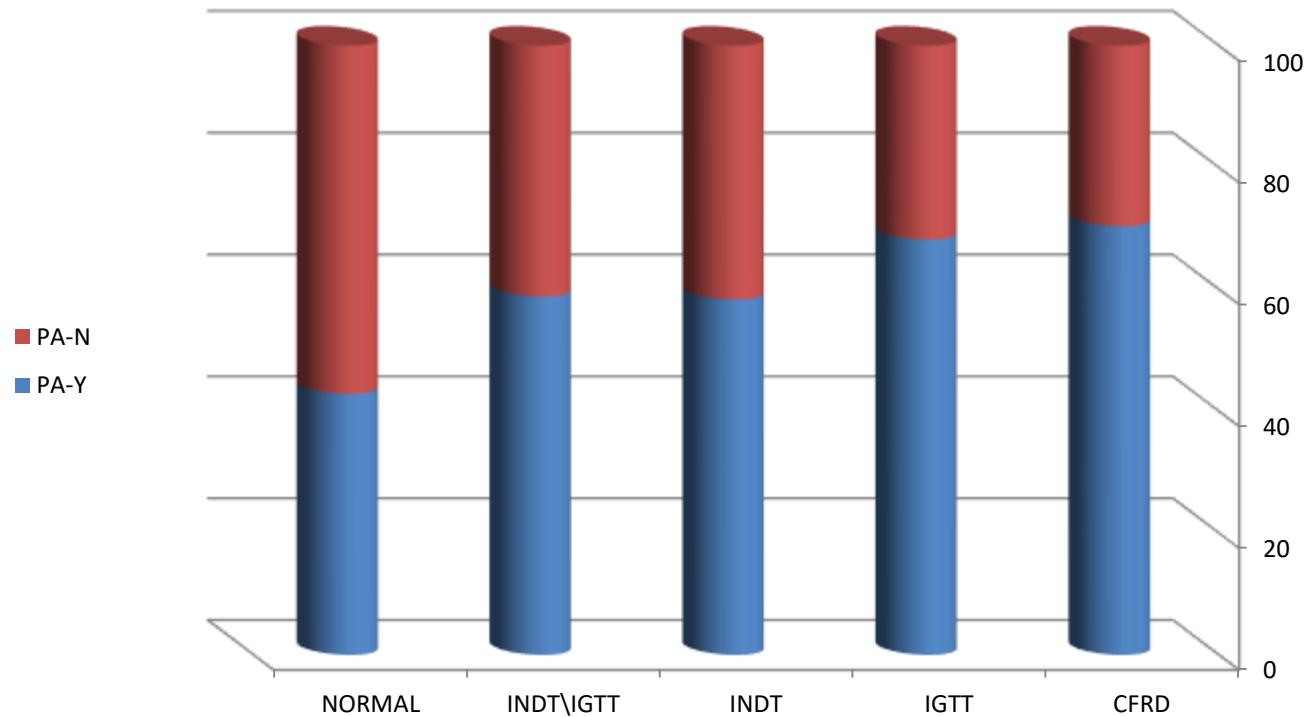
BMI Average by OGTT Category



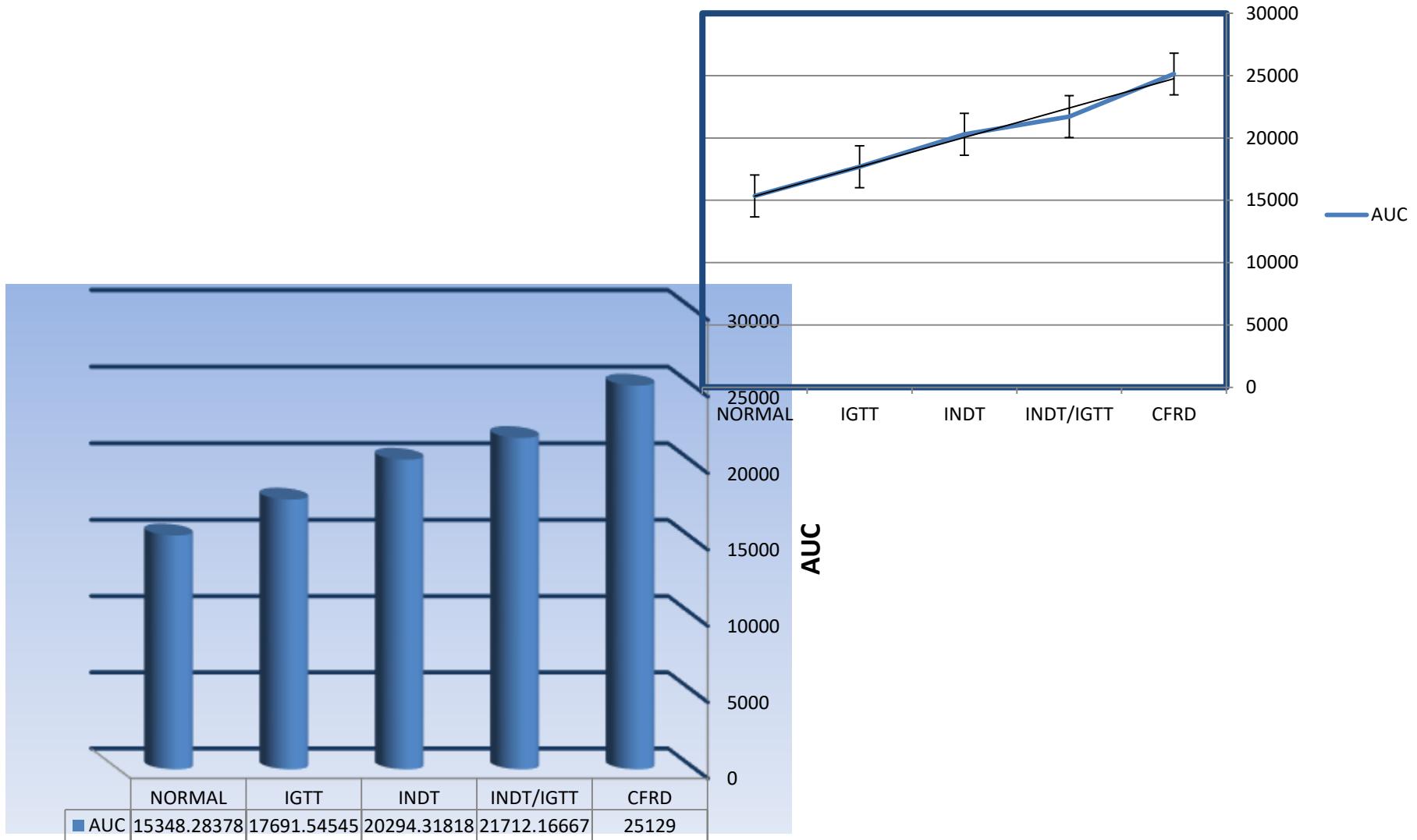
FEV1% predicted by OGTT Category



Pseudomonas Aeruginosa - Y/N



Glucose Average AUC



Take Home Message

PS מבחן סכום - OGTT ☺

!!נורמל נורמל 30-60-90-120 ☺

(?נקה נורמל נורמל?) פולימר סוכר ☺

תמיינר נורמל פולימר סוכר ☺

- מחיית הארכ' פונטימית ככליית
גיאז הצענות: אלי, פד', רעה
.... ק"ר צויסיא - סטודיו קה וסט...
פ' - כאנ"א
311ת וכ הצעיר