

Modifications of anthropometric parameters and body composition after Kaftrio® in a group of adolescents and young adults

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I have no conflicts of interest to declare that are relevant to the content of this presentation.

Background and aim

Different studies have shown that Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) modulators impact on nutritional status. It is well-known that nutritional status is strongly associated with lung function and exercise tolerance in cystic fibrosis (CF).

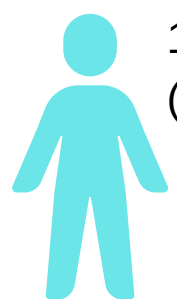
The aim of our research is to assess changes in nutritional status and in body composition after Kaftrio® introduction in a population of adolescents and young adults.

Methods

- 60 patients affected by CF
- 12-25 years old
- Nutritional assessment at baseline (T0) and after 3 months (T1):
 - Weight and height
 - Bioelectrical impedance analysis (BIA)
 - Handgrip strength (HGS)

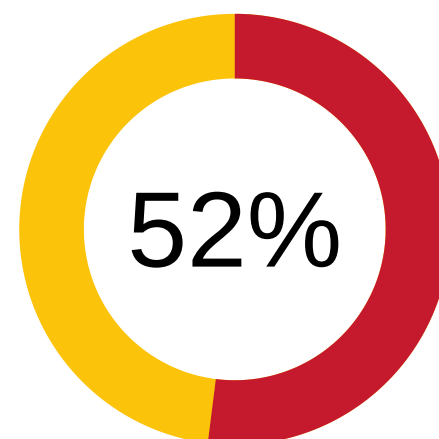
Results 1

AGE (MEDIAN)



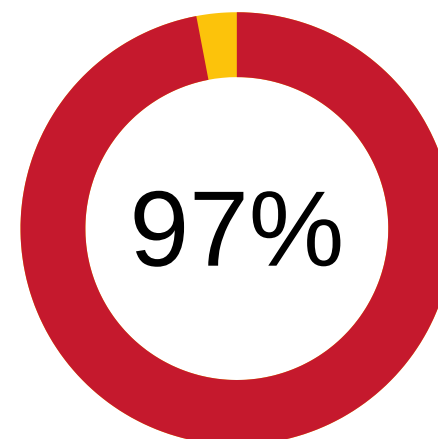
18,2 years
(range 12-24,83)

GENDER



Female
Male

PANCREATIC SUFFICIENCY



Pancreatic insufficiency
Pancreatic sufficiency

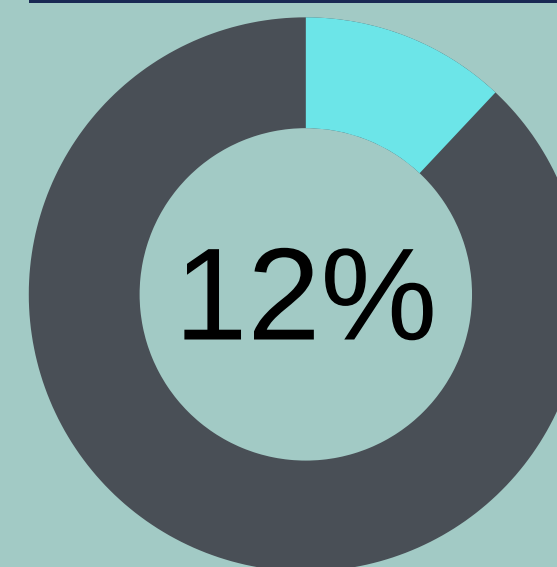
BODY WEIGHT MODIFICATION BETWEEN T0 AND T1 (MEAN)



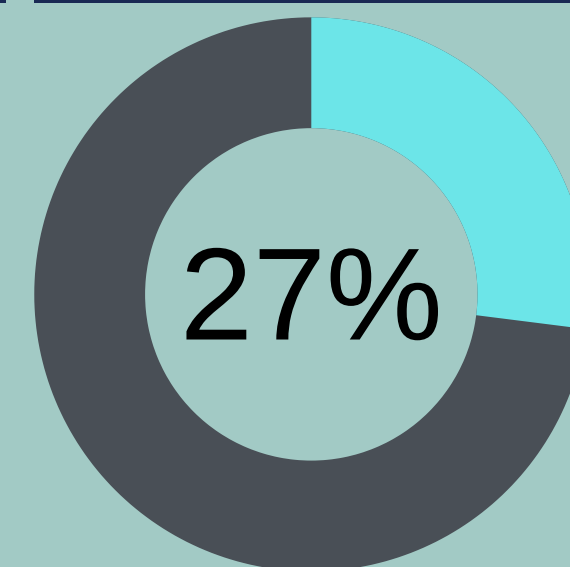
+ 3 kg

$p < 0,0001$

NORMAL NUTRITIONAL STATUS T0



NORMAL NUTRITIONAL STATUS T1



$p = 0,003$

7/60 (12%) patients had a normal nutritional status at T0 with a statistically significant increase at T1: 16/60 (27%) ($p = 0,003$).

Normal nutritional status:

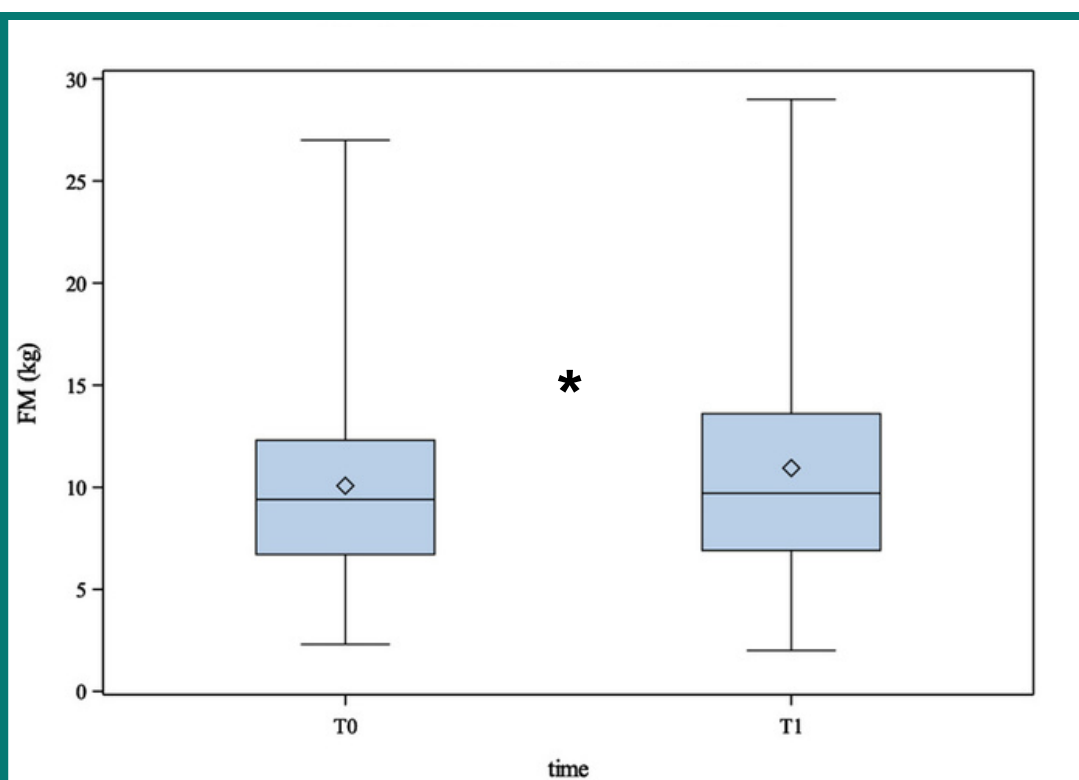
- < 18 years BMI > or = 50° percentile
- > 18 years female BMI > or = 22 kg/m²
- > 18 years male BMI > or = 23 kg/m²

Results 2

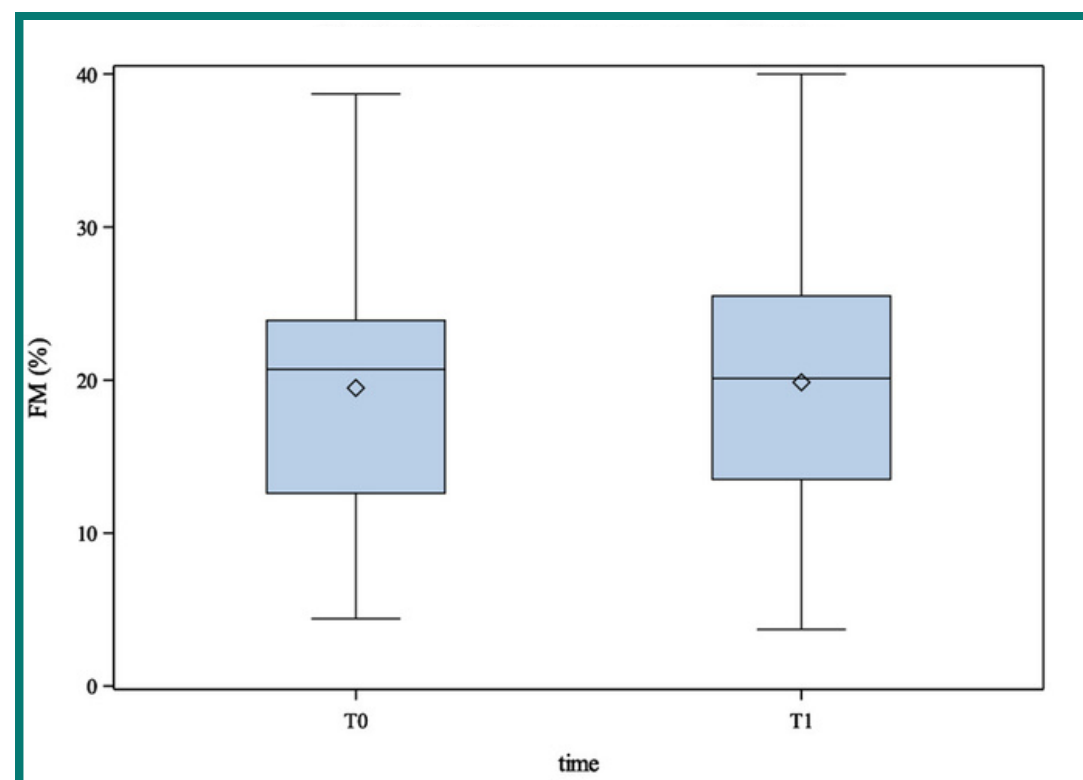
Fat mass (FM) in kg and **fat free mass (FFM)** in kg both increased with statistical significance ($p < 0,001$ and $p < 0,0001$ respectively). **Fat mass percentage (FM%)** and **handgrip strength (HGS)** increased with no statistical significance ($p = 0,2$ and $p = 0,046$ respectively).

Conclusion

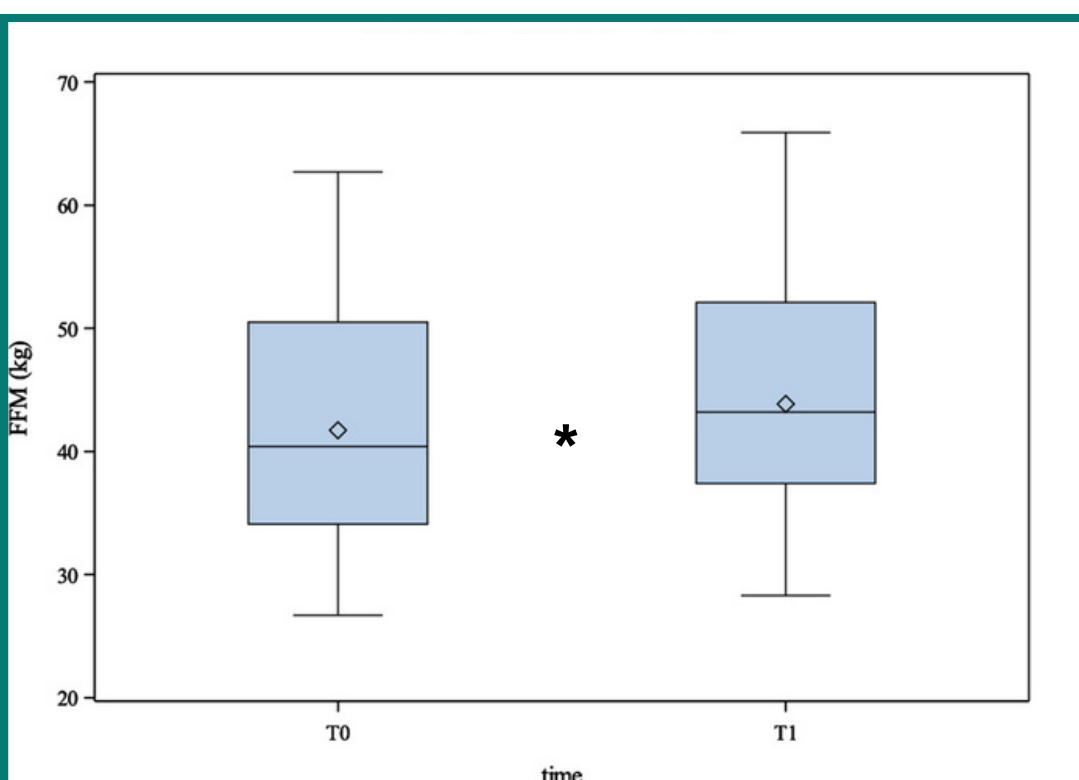
- Treatment with Kaftrio® improves nutritional status.
- Both FM and FFM increased with an improve in muscular function (HGS) even though without statistical significance in the short term.
- These findings confirm the important impact of CFTR modulators on the course of CF and also on nutritional status.



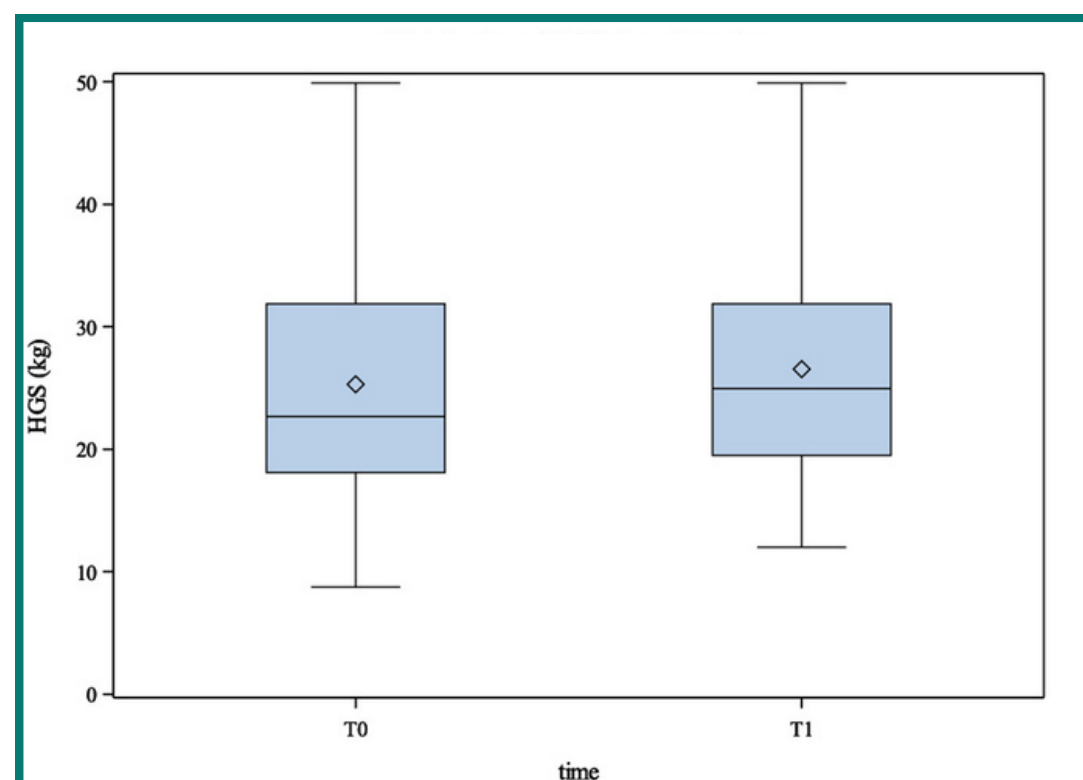
$p < 0,001$



$p = 0,2$



$p < 0,0001$



$p = 0,046$