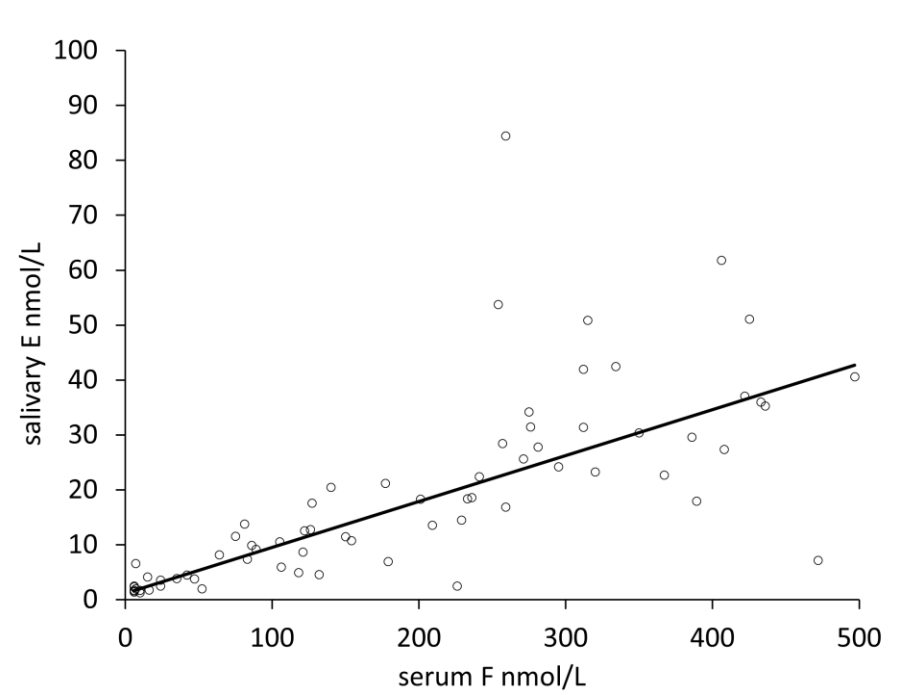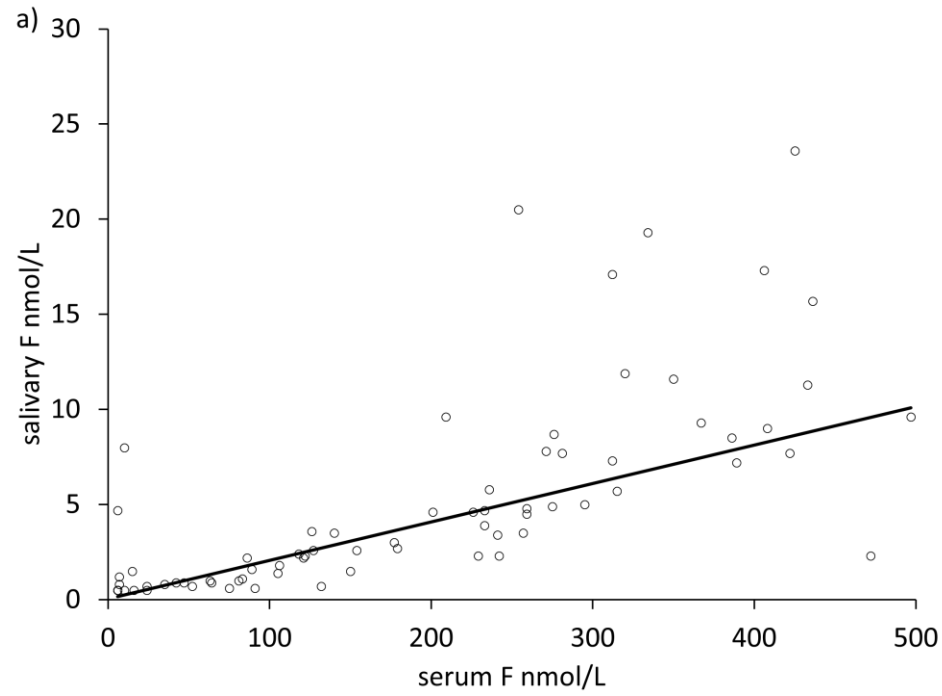1 *Supplementary figure 1*. Passing-Bablok regression between serum F and salivary F (A: y=0.02x+0.04, r=0,72, p<0.001) and E (B: y=0.08x+1.17, r=0,73, p<0.001)

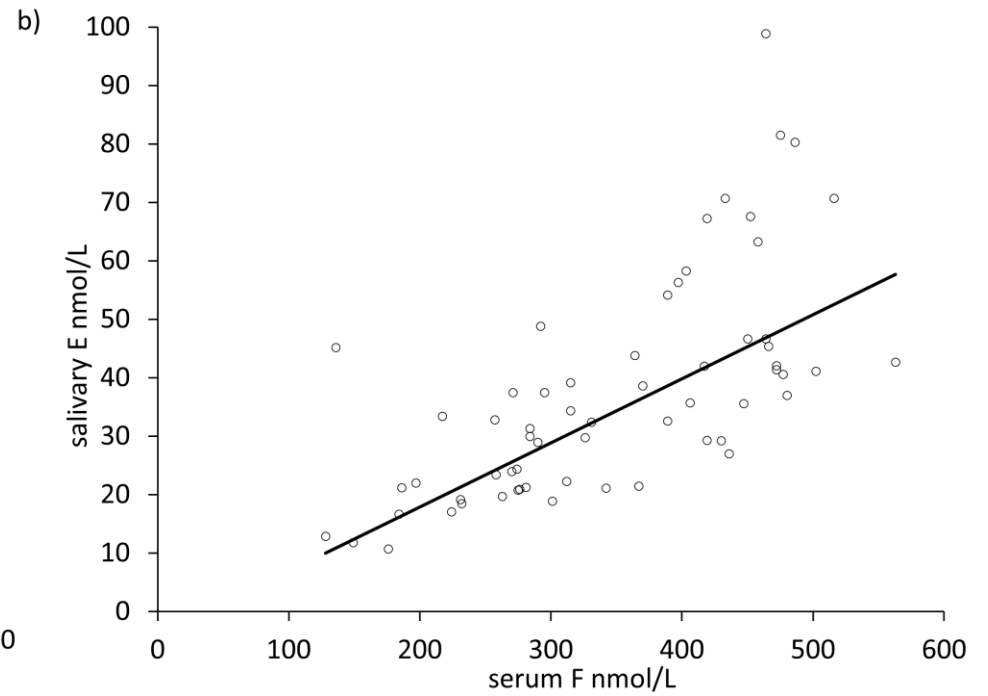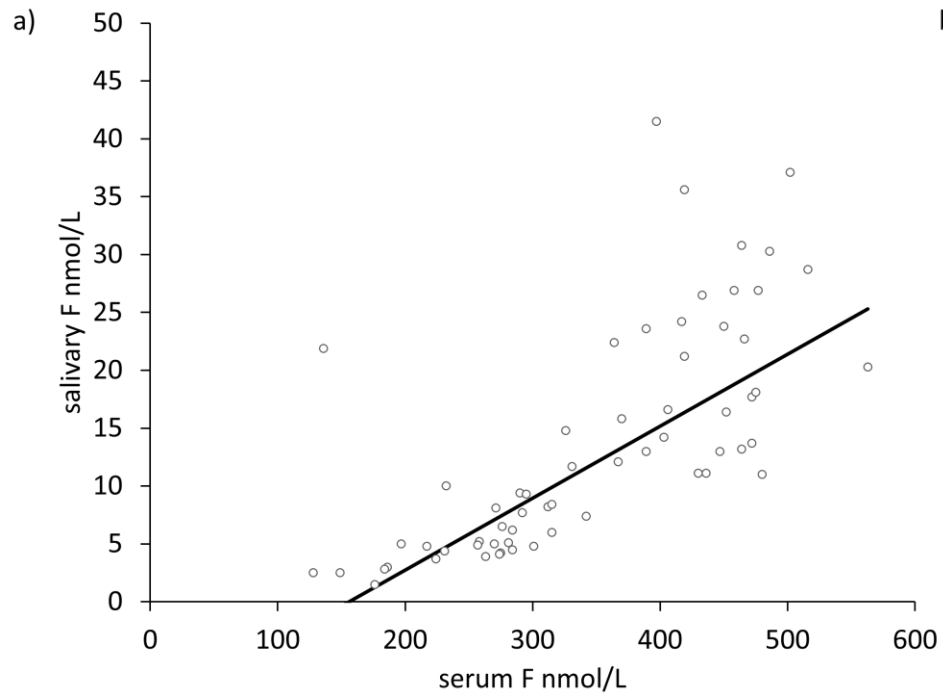2 in patients with central AI, for both basal and post-synacthen samples (n=74).

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6 *Supplementary figure 2.* Passing-Bablok regression between serum F and salivary F (A: y=0.06x-0.70, r=0.71, p<0.001) and E (B: y=0.11x-4.02, r=0.67, p<0.001)

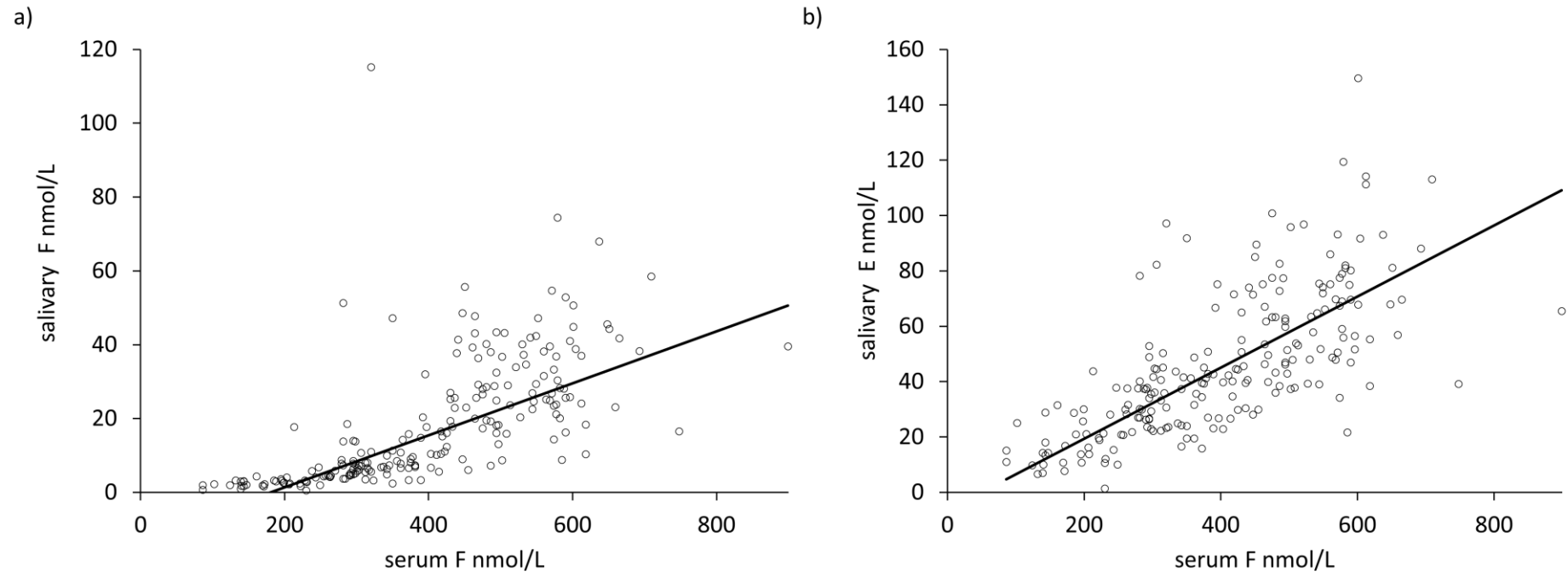7 in patients with RAS, for both basal and post-synacthen samples (n=62).

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12   *Supplementary figure 3.* Passing-Bablok regression between serum F and salivary F (A: y=0.07x-12.71, r=0.66, p<0.001) and E (B: y=0.13x-6.39, r=0.70, p<0.001)

13   in patients with a normal HPA axis, for both basal and post-synacthen samples (n=212)

14

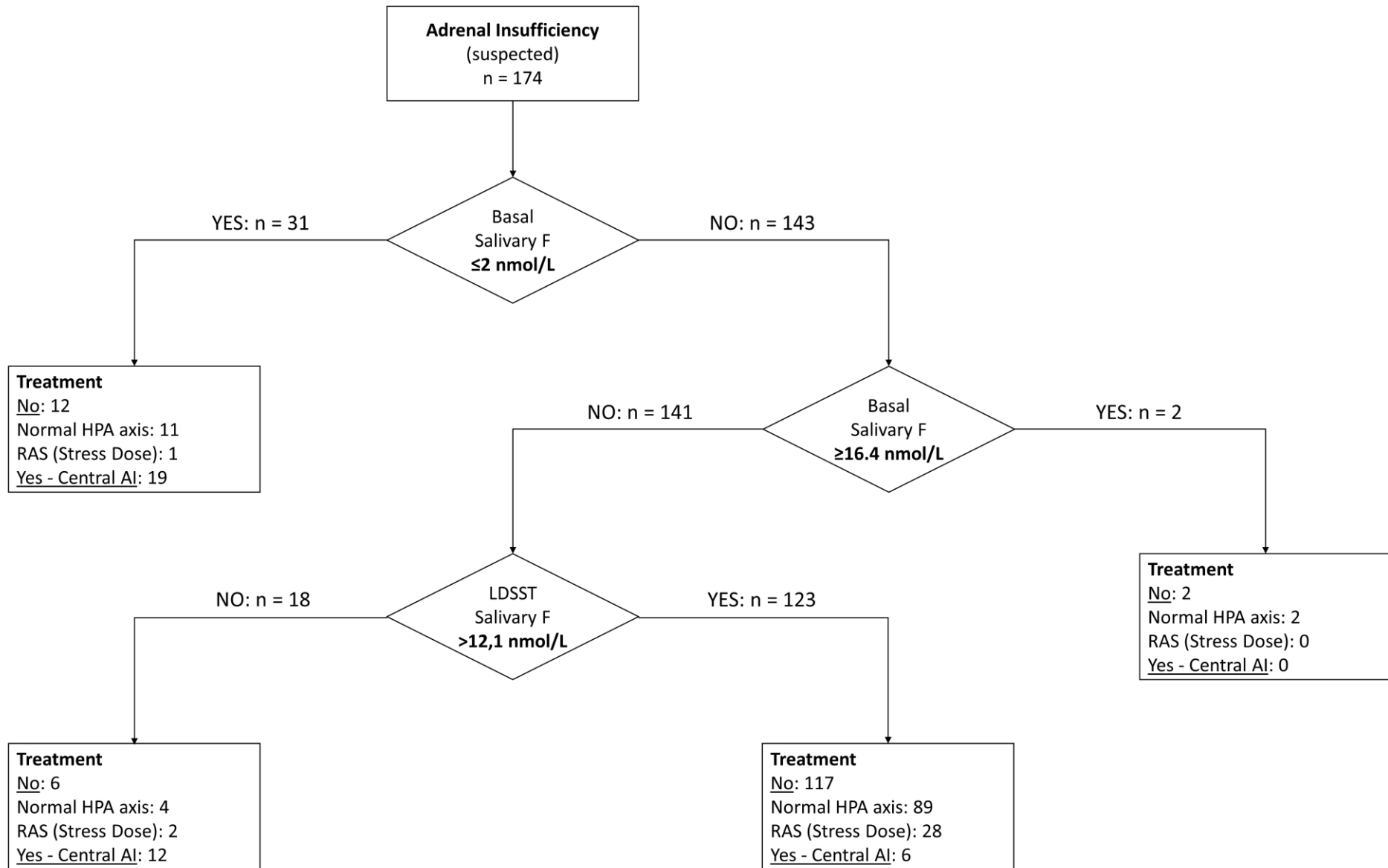
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17   *Supplementary figure 4:* Distribution of patients by our calculated threshold for salivary cortisol (F).

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                         ┌─────────────────────────┐
                         │  Adrenal Insufficiency  │
                         │       (suspected)       │
                         │        n = 174          │
                         └─────────────────────────┘
```

Adrenal Insufficiency (suspected) n = 174

Basal Salivary F ≤2 nmol/L — YES: n = 31 / NO: n = 143

Treatment
No: 12
Normal HPA axis: 11
RAS (Stress Dose): 1
Yes - Central AI: 19

Basal Salivary F ≥16.4 nmol/L — NO: n = 141 / YES: n = 2

Treatment
No: 2
Normal HPA axis: 2
RAS (Stress Dose): 0
Yes - Central AI: 0

LDSST Salivary F >12,1 nmol/L — NO: n = 18 / YES: n = 123

Treatment
No: 6
Normal HPA axis: 4
RAS (Stress Dose): 2
Yes - Central AI: 12

Treatment
No: 117
Normal HPA axis: 89
RAS (Stress Dose): 28
Yes - Central AI: 6

19