RESULTS

Fast but not slow muscle TNNI is elevated in DMD and BMD

In DMD, Fast TNNI and CK decrease with age but not slow TNNI

Discussions

- This is the first cross-sectional, retrospective study to describe differences between fast and slow skeletal muscle fiber biomarkers in DMD and BMD patient plasma.
- Findings of differential troponin levels agree with previous studies of muscle injury after eccentric exercise in healthy volunteers (1).
- This appears to be distinct from muscle injury via sepsis or trauma where both fast and slow TNNI are elevated (2).
- Previous studies have demonstrated preferential fast fiber injury in DMD patients (3).
- Our data extends these findings to suggest that slow fibers do not appear to leak muscle proteins in the context of BMD/DMD.
- The majority of healthy volunteers (83%) had TNNI2 levels below the lower level of detection of the ELISA (<0.1 ng/ml), while only 4% of BMD and 6% of DMD patients had non-measurable levels of TNNI2.
- This is in marked contrast to CK where large overlap exists, particularly in the setting of BMD or older DMD patients where plasma CK is commonly low.

REFERENCES

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