Pathological Biomechanics of Cerebrospinal Fluid Pressure in Syringomyelia: Fluid Structure Interaction of an In Vitro Coaxial Elastic Tube System

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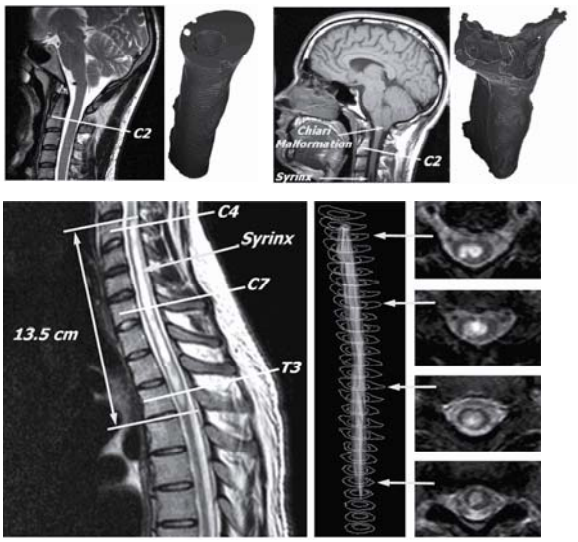
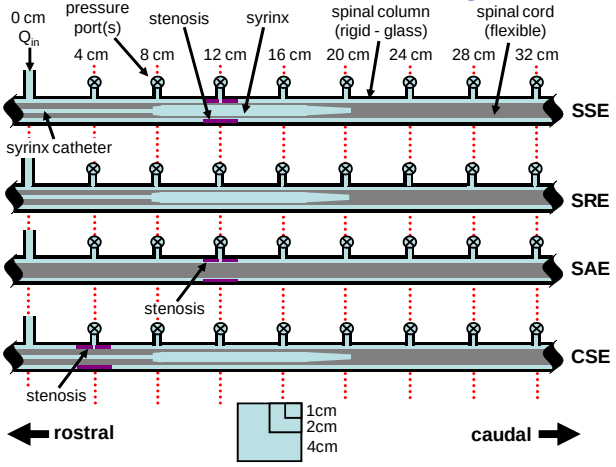
1. Healthy

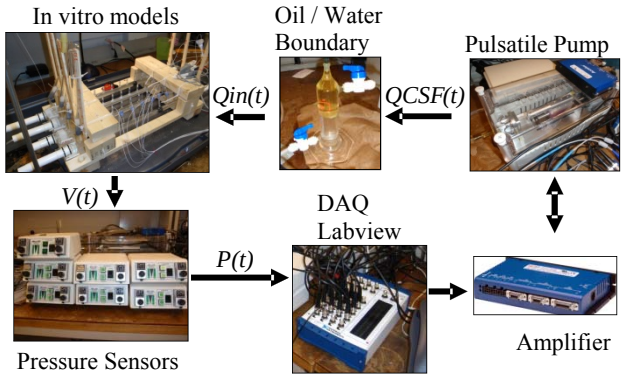
2. Pathological



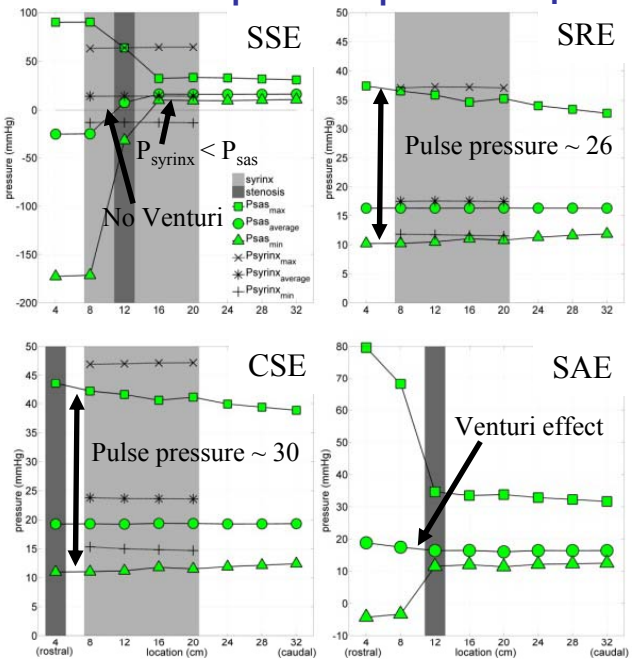
3. Methods - In vitro modeling



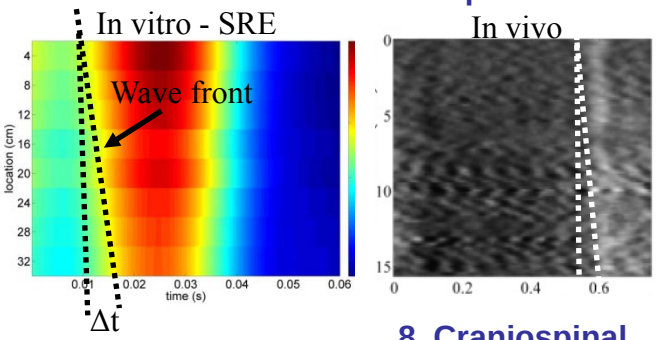
4. Experimental set-up



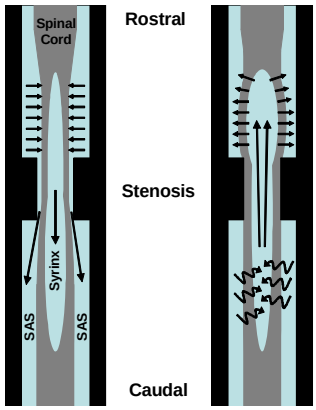
5. Results – complex unexpected FSI present



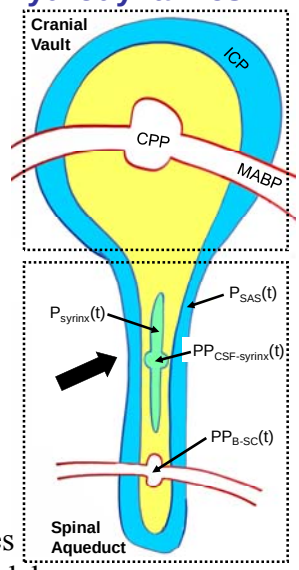
6. Results – wave speed



7. Results - Diastolic valve



8. Craniospinal hydrodynamics



9. Conclusions

- Complex FSI was present
- Unexpected hydrodynamics
- Importance of tissue properties
- Need better CSF transport model

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