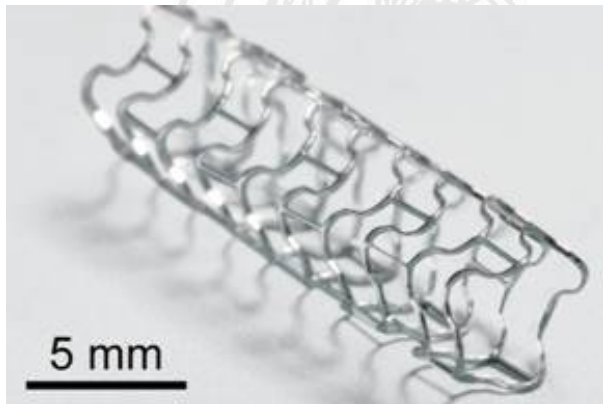


Absorbable metal stents

Problem: Absorbable metallic stents (AMSs) are a rapidly emerging technology which has the potential to eliminate long-term patient health risks associated with conventional permanent stents.

AMSs developed to date are made of materials with inferior mechanical properties to those used in permanent stents. However, for AMSs to be feasible for widespread clinical use it is important that their performance is comparable to modern permanent stents.

Objective: Study of AMSs technology and development of a virtual bench test for the evaluation of mechanical performance of AMSs respect to traditional stents.



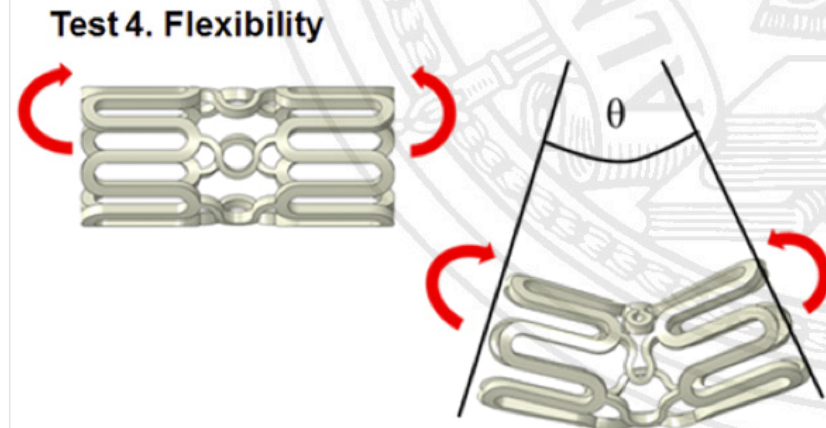
Type: Literature review / Numerical

Prerequisites:

- Good knowledge of Matlab
- Basic knowledge of structural Finite Element software

References

- J.A. Grogan, S.B. Leen, P.E. McHugh.
Comparing coronary stent material performance on a common geometric platform through simulated bench testing
Journal of the Mechanical Behavior of Biomedical Materials, 2012; 6:129-138.
- M. Bosiers, K. Deloose, J. Verbist, P. Peeters.
Will absorbable metal stent technology change our practice?.
The Journal of cardiovascular surgery, 2006, 47(4); 393-397.



Thesis proposal