Introduc
Knot tying is a basic surgical skill that has been practiced for centuries. In arthroscopic surgery, it is important to have a good knot security to ensure optimal tissue apposition for healing. Other than the biomechanical properties, the ability of surgeon to learn and tie an arthroscopic knot is also another important factor to consider.

Aims and objective
To compare biomechanical properties and ease of learning and tying of a new sliding arthroscopic knot (UMMC) with other commonly used and new knots.

Methods
Duncan, HU, SMC, Pretzel, Nicky’s and square knots were chosen for comparisons. All knots were prepared with size 2 HiFi suture by a single experience surgeon. Cyclic loading and load to failure tests were performed. Ease of learning were assessed objectively by recording the time to learn the first correct knot and total number of knots completed in five minutes by surgeons and trainee with different experience level.

Results
The UMMC knot average failure load is significantly superior to HU knot. It is comparable to Nicky’s, Duncan, Pretzel and SMC knot with no significant difference between them. In ease of learning assessment, UMMC, SMC, Nicky’s, Pretzel and Duncan’s knot were statistically easier to learn than HU knot as less time was needed to learn the first correct knot.

Conclusions
This study showed that the UMMC, Duncan, Pretzel, SMC and Nicky’s knot were among the easiest knot to learn and tie. Their biomechanical properties are comparable and their loads to failure were superior to HU knots. In view its biomechanical properties and ease of learning, arthroscopic surgeons in different level of experiences may consider learning the new UMMC knot for its favorable biomechanical properties and its ease of learning.