

6. Conclusions

After this study we can conclude that

1. Phalangeal joints are from the joints that can be successfully operated with aid of fluoroscopic guided C-arm technique as a minimal invasive technique. The possibility now exists to operate these joints under fluoroscopic control alone which constitutes a further step in the replacement of arthroscopy and arthrotomy techniques by fluoroscopy (especially in case of the small joints or in case of isolated shadows which located in the joint vicinity and are embedded or buried within the joint capsule, tendons or ligaments). The use of combination of the previous techniques is also possible.
2. Fluoroscopic guided C-arm technique is practical from the technical and cosmetic point of view. The technique is not sophisticated, quick, and easy to perform.
3. Following fluoroscopic guided surgery the cosmetic appearance is improved and the convalescent time decreased compared with arthrotomy and arthroscopy.
4. Considerable experience is required for competent surgery which, in turn is necessary for this method to have advantage over previous conventional techniques.
5. The disadvantage of this technique in comparison with arthroscopy is the lack of an assessment about the condition of the joint articular surfaces.
6. Radiation exposure is a potential draw back to the current technique; however the actual amount of time with fluoroscopy is minimal when one becomes proficient in the use of fluoroscopy. In addition personnel are exposed to a little amount of radiation exposure provided that all reasonable precautions are applied.
7. However, the necessary equipment is expensive and not widely available, but we find this method to be a rapid and effective minimal invasive method and no complications specific to this method were encountered in this study.
8. Fluoroscopic guided surgery has opened a new ways for less and minimally invasive surgery or even a new surgical technique in equine surgery. With minimal alterations, the technique reported in this study can be utilized for further applications in other joints or in orthopedic surgeries that require precise intraoperative measurement and minimal invasive technique.
9. Minimal invasive equine joint surgery will develop rapidly in the coming years with the advancement in the image guided surgical techniques (computer assisted surgery).