SUMMARY AND CONCLUSION

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The aim of this study is to determine the prevalent soft tissue injuries in the top cyclists of the national teams and to emphasize the importance of early diagnosis and treatment.

This study was conducted on 100 cyclists from the national team.

Fifty of them were juniors (15-17 years), while the other 50 were seniors (17-30 years)

All these cyclists were males who were selected from the attendants of the sports medicine specialized hospital - El Gizera, Cairo, complaining of diffrent forms of soft tisue injuries. They were examined clinically, after a medical history, generally and locally according to the site of injury with special tests of the involved parts to be imphasize the diagnosis. The patients were subjected to full investigations according to the nature of their complaint. These investigations included.

* Laboratory investigations:
  - Complete blood count (CBC).
  - Erythro cyte sedimentation rate (ESR).
  - Serum uric acid.
  - Rheumatoid factor.

- Urine analysis.

* Radiological examination.

* Arthroscopic examination.

* Ultrasonography for suspected soft tissue lesions.

* Muscle testing for detection of muscle injury.

* Nerve conduction studies:

The injuries were recorded according to season of competition (early season, mid season and end of season) and according to performance of cyclists (first group, second group and third group).

The total no. of injuries in our study were 75 (100%) in the seniors and 65 (100%) in jeniors the lower limb injuries came in the first place of all body injuries where it comprised 61.5% in junior cyclists and 68% in senior cyclists.

The knee injuries comprised 30.8% in juniors and 33.9% in seniors while the thigh, leg and foot represented 30.8% in juniors and 44.6% in seniors.

The most common injuries of the lower limb in seniors were: chondromalacia patellae (20%) and tendo Achillis tendinitis (13.3%) while in juniros they were: tibial apophysitis (18.5%) and calcaneal apophysitis (13.8%).

The upper limb injuries comprised 23.1% in juniros and 18.7% in seniors. The most common upper limb injuries in juniors were: lower ulnar epiphysits (10.8%), ulnar tunnel syndrom (4.6%) and olecranon bursitis (4.6%) while in seniors the ulnar tunnel syndrome represented (13.3%) and carpal tunnel syndrome (5.3%).

Back injuries in our study were 13.4% in senior cyclists and 15.4% in junior cylists.

In our study most injuries affected cyclists in the third level of performance capacity (37.3% of seniors and 37% of juniors) while the injuries were less in the high level of performance (8% of senior injuries and 12.3% of junior injuries). Also most injuries occurred at the end of season (49.2% of junior injuries and 36% of senior injuries), due to overuses or over training.

From our study it is concluded that most of injuries were chronic lesions with no definite history of trauma but due to chronic repititive microtraumata with their cummulative effects, periodic full examination and follow up of cyclists is the key of success in treatment of cycling injuries.

The most effective preventable precautions which are the way to reduce the number of bicycle injuries are:

1. Proper positioning and technique.
2. Adequate materials as bicycles, shoes and gloves..
3. Suitable measurements of bicycle for each cyclist.
4. Good roads and tracks for competition.

The cyclists qualifications, sports equipment and facilities and characteristics of cycling are important factors in relation to cycling injuries.

Prevention and early diagnosis is the key of success in treatment of cycling injuries by periodic full examination and follow up of cyclists in centers of sports medicine.