

Faculty of Health Sciences Medical College

May 3, 2004

The Chairman Pakistan Cricket Board Gaddafi Stadium Labore

Subject:

Medical Commission

Ref:

PCB letter dated 19-4-2004 from Mr. Ramiz Raja (CEO)

Please find enclosed herewith the report of medical commission as desired.

It was indeed an honor & privilege to Chair the medical commission of PCB. I thank you for the confidence and trust reposed in me for the skills and command on the specialty of sports injuries.

May I suggest that the general recommendations incorporated in the report may be given serious consideration to help avoid unforeseen situations in future. This is a matter of national pride and dignity.

Looking forward to working with you to take care of your future medical needs.

Sincerely your

Dr Muhammad A Wajii FRCS, FRCS (Tr & Orth)

Chairman Medical Commission

Encl: Report of the commission, total 9 pages.

# Report of the Medical Commission

## For

## Pakistan Cricket Board

By: Dr M A Wajid FRCS, FRCS(Tr & Orth)

## Preamble

 Pakistan Cricket Board constituted a medical commission on April 19th, 2004 comprising on DR M A Wajid, Prof Nascer Mahmood Akhtar, Dr Riaz Ahmad and Dr Sohail Saleem. The commission was asked to examine & substantiate the authenticity of injury sustained by Pakistan's Fast Bowler Shoaib Akhtar during the third test match between Pakistan and India.

Before 1 opine on the outcome of player's physical examination & allied laboratory investigations, I would like to restate the objectives of constitution of this commission:

- To assess the injuries of Umar Gul, Moin Khan, Abdul Razzaq, Shabir Ahmad
   and Shoaib Akhtar sustained during the current Pak-India series.
- To advise on injury prevention.
- To evaluate the extent and authenticity of Shoaib Akhtar's injury.

In order to look into the above outlined matters following actions were taken by the commission:

- The commission met on April 25th & 28th 2004 at Pakistan Cricket Board's office in Labore.
- The commission examined some of the players present and their related investigations were reviewed.
- The team doctor communicated about the absent player. However, his history, investigations & findings were reviewed by the commission.

The commission examined Umar Gul, Moin Khan, Abdul Razzaq and Shoaib Akhtar but Mr. Shabbir Ahmed could not be examined as he remained absent.

The individual assessment of each player is given overleaf.

## Commission's report on injury sustained by Umar Gul

Date of examination 25April 2004

#### Relevant History:

The team doctor appraised the commission of the presenting complaints. Main complaint was intermittent lower back pain of moderate severity, particularly after stremous exercises. The pain was mainly localized around the lower lumber area with no radiation to either leg. It was exceeded by bending and hyper-extension. There was no complaint of weakness in either leg. Most of these symptoms started after the match.

Examination revealed that he has normal spinal curvature with good shoulder and pelvic balance. There were no cutaneous stigmata of any systemic disease on the back. He has full range of spinal movements with some discomfort during the terminal stages of flexion. Extensor muscles of lower back appeared to be slightly less in bulk.

#### Investigations:

MRI of lumber spine with out contrast done on 7th April 2004 revealed "minimal hypertrophic changes involving the L3/4, L4/5 and lumbosacral interspaces posterolaterally".

The team doctor informed us about the treatment provided to him, which included massage and manipulation of lower back and rehabilitation exercises.

At the time of examination, most of Umer's symptoms had already settled and he only had minimal discomfort in his lower back.

We advised him to complete the rehabilitation exercises with specific emphasis on building his lower back extensor muscles in order to balance his 'core strength'.

PS: "Core strength" is the balance in strength of anterior abdominal muscles and muscles of lower back. Players with poorly balanced 'core strength' i.e. greater strength in Abs compared to lower back are more prone to lower back spasm.

#### Commission's report on injury sustained by Shabir Ahmad Khan

Date of Evaluation: 25th April 2004

The player did not come for evaluation.

The Bone Scan report done on 3<sup>rd</sup> April 2004 was reviewed in his absence and the team doctor informed us about his symptoms. His bone scan showed that there is "linear pattern of abnormal increased uptake, seen in the region of left tibia along medial border"

The appearance is suggestive of "shin splint of left tibia". Team doctor informed us that his symptoms are improving with conservative treatment besides complete rest.

### Commission's report on injury sustained by Moin Khan

Date of examination 28th April 2004

### Chronology of events:

The team doctor provided history. During the training session at the end of first test in Multan, he felt pain in left groin, lateral to the adductor longus muscle. Clinically at the time of injury there were no objective findings. However, passive resistive exercises caused pain. Initial treatment in the form of rest, analgesies and cold compresses was given. This relieved most of his symptoms.

Subsequently he started to complain of stiffness of lower back. Back stretching exercises were done under supervision but he himself did not feel fully fit to take part in the next match.

#### Investigations:

He underwent MRI scan of his lumber spine on 5th April 2004, which revealed "slight degenerative type loss of normal disc signal at L4/5 interspace".

He did not play in next test match. However, at the conclusion of the series, he resumed his routine fitness program. He had informed the commission that now he feels fit to continue his routine sporting activities.

#### Injury Prevention:

Wicket keepers are especially prone to develop lower back problem due to specific posture, which they have to adopt. This prolonged flexion of back, hip and knees put extra strain on the back extensors and thus make them more prone to fatigue.

Moin informed the commission, that he does not have a specific fitness program tailored for his specific needs. Instead he is doing the general training program.

We would recommend that the wicket keepers in general, should have specific exercise programs addressing the lower back muscles. Hydrotherapy/Swimming pool access should also be made available to them during routine training sessions.

## Commission's report on injury sustained by Abdul Razzaq

Date of examination: 28th April 2004

## Chronology of events:

The Team doctor provided preliminary information about the player.

Mr. Razzaq started to complain of pain in his left hip/buttock area after delivering a ball during the follow through phase. Pain was of moderate intensity. Examination at the time of injury revealed that the pain is exceeerbated by flexion/adduction/internal rotation of left hip. He was provided initial empirical treatment for muscle spasm, which included rest, analgesia and ice application. On third day of the injury, team doctor noted swelling over the lateral aspect of hip around peritrochanteric area and local increase in temperature. He continued the initial treatment.

He was not included in the second test due to fitness concern by the management.

## Investigations:

MRI scan of his hip was done on 8th April 2004, which revealed "a single abnormality in the adductor compartment of left side. This linear abnormality is confined to probably few fascicles of the obturator externus muscle belly".

Recent examination revealed that he still was complaining of pain in left hip during terminal flexion and internal rotation of hip. He is advised to continue the treatment and it is expected that he will be able to participate in the forthcoming training camp in May 2004.

## Commission's report on injury sustained by Shoaib Akhtar

Date of examination: 28th April 2004

## Purpose of the examination:

- To evaluate the authenticity of injury sustained by him during the third test.
- To evaluate the extent of injury.

#### Chronology of events:

Following is the account of events submitted by the team doctor.

"Shoaib while playing against India during the third test match at Rawalpindi on 14th of April 2004 suffered mild injury in his left wrist" After delivering the ball, during the follow through, he fell and landed on his left hand/wrist. He felt significant pain, play was stopped and medical help was demanded. Examination at that time revealed, "There was mild bruise on the palmar side of wrist along with mild swelling. He was unable to do any active wrist movements possibly due to spasm of the muscles". During the next over after first ball, he again felt pain in his wrist and came out of the field. After receiving treatment for about twenty minutes, "he was able to do all wrist movements actively and passively".

He went back to field and after some chat with captain but left the field and now was complaining of left flank pain around the area of 12<sup>th</sup> rib. Repeat examination revealed "no bruise or any obvious swelling. On deep inspiration, he complained pain and pain on left lateral flexion also. On palpation there was tendeniess below and posterior to the 12<sup>th</sup> rib". He continued to have treatment and did not play on 15<sup>th</sup> of April. On 16<sup>th</sup> of April, he went for batting and played apparently without any obvious discomfort.

## Physical examination:

Relevant examination revealed that he was still complaining of pain over posterolateral aspect of left chest. No obvious abnormality of left lower chest was noted. Lateral flexion also caused some pain. No problem with breathing.

### Investigations:-

After the game, on 14th of April 2004, he had x-rays of his chest and both wrists, which were apparently normal. The commission has not seen the hard copy of these x-rays.

On 17th April 2004, he underwent MRI scan of Thoracic spine and Abdomen to rule out any pathology. MRI of thoracic spine is reported by Dr Iftikhar Ahmed Bhutta, consultant radiologist of Rawalpindi as "unremarkable study of thoracic spine".

MRI of abdomen is reported by Dr Iftikhar Ahmed Bhutta, as "muscle contusion involving external and internal oblique with focal hemorrhages and edema. No rib fracture noted".

Bone scan was done on 28th April 2004, which is reported by Dr Muhammad Khalid Nawaz as "result is suggestive of local pathology involving 11th left rib posteriorly and laterally. In view of patient's history, this appears to be due to persistent stress"

#### Assessment of Injuries:

His MRI scan was done on third day after injury. It has been reported by three independent consultant radiologists. One radiologist reported "muscle contusion with focal hemorrhage and edema" while rest of the two radiologist do not agree with it.

Since the radiologists have given conflicting opinions on the same MRI images, therefore it gives rise to some shadow of doubt on their opinions. In my personal view, I think the conclusion given by Dr Zafar Sajjad and Dr Noor Bibi (" No abnormality seen on the scan images provided") appears to be the correct conclusion (reports already with PCB). In the presence of recent injury, one usually observes increased signal intensity on MRI in the affected area.

I have reviewed the MRI images in person with the radiologists and could not see any significant signal change in ribs as well as abdominal muscles. However, Dr Iftikhar Ahmad Bhutta who has opined that there is pathology of the muscles of abdomen may be right in his own judgment based on his experience and skills.

The bone scan done on 28th April 2004 (about Two weeks after injury) revealed that "there is intense increased up-take in the 11th left rib posteriorly going towards the lateral side of the chest".

This raises the questions if the injury is so diffuse, why it did not show up on MRI images of bone (left 11th rib) or the muscles surrounding it? There is possibility that Mr. Shoaib had sustained injury to his rib but the objective evidence at this stage is not conclusive.

To synthesize the issue further, the commission would strongly urge to take these reports in the light of pre and post injury performance of the player both in terms of game and otherwise.

A repeat MRI or CT scan in two weeks time will be helpful, as this will clearly show the formation of new bone, if there is a stress fracture of the rib and that can be labeled as the final evidence.

## General recommendations of the commission

- The PCB should maintain a central database of player's medical history which is essential prerequisite to reach correct diagnosis. This will help facilitate in advising the players on their fitness trends and then institute targeted treatment to optimize fitness.
- Players should be assessed biannually by skilled orthopaedic surgeons having specific interest in sports and their recommendations communicated to players.
- 3. As the fast bowlers and the wicket keepers are specifically prone to develop back problem, PCB should schedule a training regime incorporating specific exercises to improve strength of their back muscles.
- Off and on, opinion should be sought from experts and should form part of players training profile.
- In between and after the matches, players should be properly rested to avoid fatigue injuries, which will help in optimal utilization of their capabilities/potential.
- 6. A biomechanical lab/ Gait analysis lab should be established for objective assessment of team players. This will help establish specific areas of improvement in a player's performance and then progress may be monitored objectively over a period of time.
- Confidentiality of information regarding a player's profile should be strictly observed & adhered to.

Signed by the members of the commission:

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Prof Dr Nasser Manhood Akhtar FRCS
 Former Head of Orthopaedic Department
 King Edward Medical College Lahore

 Dr Ritz Ahmed Pakistan Team Doctor

 Dr Sohail Saleem Pakistan Junior Team doctor Member

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