Medical Aspects of Violence at Sports Events

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From time immemorial, physical exercise has been an integral part of human culture, and this has remained so to this day. The first written account that we possess dates from 776 BC, and mentions the first celebration of the Olympic Games, which then took place periodically at Olympia, in the north-west Peloponnese. And if we take this date as being that of the birth of sport, then it brought pleasure and entertainment to the men of Antiquity for more, and perhaps much more, than twelve centuries.

The Olympic Games of modern times have less than a hundred years behind them and yet the main aims of physical exercise, i.e. the development of a sense of responsibility and loyalty, the ability to be affected by pleasure or pain, a training designed to channel judiciously the spirit of combat and a healthy education, founded on noble moral principles which are likely to increase physical and moral strength in the face of trial and effort, are all veering more and more towards a grotesque caricature of the sporting ideal, and this is putting the very practice of sport in danger.

Sport has always been, and remains to this day, a social act, a source of real joy and satisfaction for those who chose to devote themselves to it.

Thirty or forty years ago, sport was no more than a distraction; it was both a game and a means of relaxation. However, hit by scientific and technical developments, it has acquired a new perspective, unknown until now - that of the development of man's physical output.

Some see competitive sport as a sort of religion, the widely held myth of our époque. In a work published in 1976, Karl Adam states that sport properly used is a factor of human progress. Certainly, there is a small minority in society for whom the original aim, and the very essence of sports practice, have sunk into oblivion, leaving sport only its entertainment aspect. Thus, not content with being a source of enrichment, both material and moral for the individual who practises it, sport offers society the possibility of safely containing the over-abundant energy of the masses.
The philosopher, Jean d'Ormesson, a member of the French Academy, speaks of physical exercise as coming mid-way between daily tasks and play; the carrying out of these exercises amounts to an attempt to bring together strength and truth, in line with certain moral rules and standards which ordain that truth must triumph over force. We cannot consider our adversary as being like ourselves as this would amount to surrendering to him our chances of victory. It is for this reason that we have found it necessary to introduce into sport the notion of “fair play”, an efficient way of fighting back against the aggression and brutality which are so often found in sporting environments.

It should be stressed that physical exercise is not like war, that in sport there are no enemies, only rivals, whose aims are not to pull each other down, but by their play, to show off their physical condition and the breadth of human abilities.

A mercenary spirit reigns today in the world of sport, although it is increasingly concealed; distortions appear in the opportunities for victory which an individual is offered, and also in what certain states lay claim to in order to satisfy national pride.

Aggression and brutality manifest themselves in our lives all the time. They emanate from the media, they are flaunted in certain television films, they are further reinforced by the lack of culture and poor living conditions which sometimes compel young people to seek an apprenticeship in violence; to all this add the aggressive political relationships amongst nations, the acts of terrorism, and it becomes obvious that for a sportsman, his surroundings exercise a definite influence.

Any man may be led to think that, since it is possible to assassinate such people as Lumumba, Hammarstjöld, Kennedy or Moro, he too can push aside a wing player who appears undefeated before the goalposts.

Despite everything, sport remains today the only part of our existence which offers opportunities to meet other people, and to create friendly ties without discrimination as to race, religion or political beliefs.

The practice of physical exercise gives us the opportunity to compare our own strength, cleverness and speed with those of our rival, for our own pleasure as much as for his.

It is of primordial importance that we should hold on to this opportunity and to this end we must draw attention to those procedures and modes of behaviour which are likely to endanger both sport and the athlete.

Men are fallible, and some infractions of the rules were also, it should be pointed out, recorded during the ancient Olympic Games. Pindare held greed to be the greatest enemy of the sporting spirit. He points out to us that in 332 BC Kallipsos bought off his opponents in order to win the pentathlon. Philostratos wrote that at the Isthmic Games - celebrated two years after each Olympic festival - a young free-style wrestler obtained the trophy by giving 3,000 drachmas to his rival.

Since ancient times, money has been handed over to sportsmen to make them withdraw from competitions. We know that Kroton and Sybaris allocated very large subventions to the best known champions so that they would only take part in their festivals.

Are we amazed nowadays to see a tennis player refuse to play a match if he does not receive enormous compensation in dollars? The difference between the practice of sport in ancient times and its practice today lies mainly in the frequency of such events; rare at the time, nowadays they are common currency.

There are two other problems which worry me as a doctor - not only because of the proportions which they have taken on but also because they are in contradiction with the Olympic spirit. One concerns the injuries, which are becoming more and more serious, and the other the use of drugs and doping products during events and training.

Are sports injuries inevitable?

Looking at the statistics, it would appear that a certain number of injuries are inevitable.

But nowadays there is a change in the quality of the injuries; in fact, an ever-increasing deterioration in the type of injuries.
incurred has been noted. There is no compari-
son between a football match where the list of
injuries only mentions 3 haematomata and
another one where the count is two fractures.

In Hungary, as in other countries, there are
insurance policies covering the risk of injury
and accident in sport. According to the
statistics drawn up by the Department of
Social Insurance, over the last five years the
number of accidents declared has increased
by 34 % and the money paid out in insurance
has risen by 56 %.

This shows the growing seriousness of the
accidents and the rise in costs in providing the
necessary care. But I refuse to speak in terms
of statistical data, which by their very nature
are always relative and generally do not give
a precise idea of the accidents.

From television and newspaper accounts of
events, we can see that brutality usually leads
to injuries and accidents.

During the last football world champion-
ships, millions of television viewers were able
to see the German, Schumacher, knock down
the French player Battiston without making
any attempt to avoid injuring him. But this is
nothing compared to water-polo. When the
match at stake is an important one, swimmers
are compelled to play a defensive game on the
two-metre line to resist the attacking game
played by the opposing team.

Everyone knows that nowadays football,
basketball, and volleyball players use tactics
which are outside the rules, i.e. that they have
recourse to illegal means to stop the
attackeres.

This attitude is conditioned by the rules of
water-polo themselves, at least those cur-
rently in force. The exclusion of one player to
the advantage of another does not imply that
the latter will be able to push the ball into goal.

The use of ear-guards is obligatory in
water-polo, but today many players also wear
a protective helmet made of plastic.

However, there are disciplines where
aggression and brutality cannot influence the
style of the game. In tennis, for example, it is
unlikely that a player could provoke a serious
accident, even if the sums at stake were very
large. The same is not true of football. Some
people assert that the rules in force in certain
disciplines are out of date, that it is a mistake
to apply the rules of amateur sport to a game
which has become highly technical. I too would
support a change in the rules. In fencing, for
example, I would eliminate the “running
attack”. But I remain firmly convinced that
many accidents could be prevented if only
referees would take care to ensure the strict
observance of rules and not change their
attitudes under the pretext that they are
officiating at a world championship, if they did
not hesitate to penalise the champion, rather
than supporting him, and finally, if they all
knew how to tell the difference between
severity and harshness.

We tend to remember the accidents which
occur during world championships ; however,
the many accidents which happen during
matches at the lowest level, even during the
Olympic Games, should not be forgotten. A
player who is not in good physical condition
will have great difficulty in mastering his
actions and co-ordinating his movements.
There are two possibilities : either he is
supported by his desire to win, and may thus
be easily led to injure his opponent, or he may
become tired and injure himself through lack
of co-ordination.

In Fencing, it proved necessary to change a
50-year-old rule. This may seem illogical at
first glance, but the new rule is of greater
benefit to the competitor than the old one. The
latter gave the fencers a ten-minute rest to
treat any possible injuries - but only once a
day. From now on the competitor has the right
to take several breaks during the day. As the
tactics in fencing become more and more
aggressive and accidents more and more
frequent, the new rule enables competitors to
receive appropriate treatment straightaway
and to continue to play. In 1963, during a world
championship for the under-twenties, the
English player Pittmann had his hand pierced
by his opponent, through his protective glove.
He needed three stitches urgently. Pittmann
continued in the event and during another
bout, his opponent once again wounded him, this time in the leg, and once again the wound had to be sutured.

According to the old rules, the competition would have been over for Pittmann who, it should be stressed, went on to qualify for the final.

Fencing strips have seen three fatal accidents over the last five years. One occurred in Hungary, another in England, and the last at Rome, in 1982, when the Soviet fencer Smirnov, world and Olympic champion, lost his life when his opponent’s weapon broke through his protective mask, passed through an eye, and pierced his brain.

Now we must speak of the injuries which the competitor himself provokes, or which result from the orders of his trainer or doctor.

Philostratus had already written, in “Science and training”, that the coach must be considered in the same way as we consider the philosopher, the poet, the musician, the mathematician or the doctor.

He makes it clear, several times, that the coach must have knowledge both of medicine and physical exercise. He must be able to solve all problems in regard to muscle development and the athletes’ diet. According to Philostratos, the doctor can treat a fracture, replace a dislocated arm or relieve eye-strain. These are excellent principles, and henceforth make collaboration between doctor and coach inevitable.

There are two elements which increase the risks of accidents and to which I would like to draw your attention: first of all there is the seriousness of the injuries which can occur, and next the problem of the athlete’s age.

It is quite obvious that the age required to begin the practice of sport varies according to the different disciplines. The rudiments of swimming are not acquired at the same age as those of wrestling, or athletics. However, there

The use of ear-guards in compulsory in water-polo.
are fundamental biological laws which must be followed if corporal damage is to be avoided.

Children, as we know, possess great faculties of adaptation, as well as cohesion of form and function. It is on these principles that ballet schools have been founded, since at the pre-pubescient age the child is capable of carrying out any kind of exercise. But if a too heavy burden is placed on a child’s shoulders, and if he or she is put to the test too early, there is a risk of unleashing a pathological process leading to the appearance of psychological problems or upsetting the ossification phase, and diminishing the child’s ability to adapt.

As a doctor and a former athlete my heart sinks when I see young girls of fourteen or fifteen, weighing no more than 40 kg, wear themselves out during a gymnastics event. At the age of 20 or 30, they will suffer from problems of the spleen, and articular diseases, and their defective ossification will make it impossible for them to give birth. In adulthood, adaptation becomes more and more difficult, but the skeleton, which is stronger, is better able to sustain the effort.

What are the factors which increase the risk of injuries? The fault may be imputed to a quantitative lack of exercise, of warming-up time beforehand, insufficient psychological preparation, fatigue, or a latent illness. But in no case should the responsibility of the trainer and doctor be minimised. Take a tragic example: during a match in the European Handball Cup, one of the players on the German team, Deckarm, fell suddenly and had to leave the court to recover. The coach asked him if he felt he could go on with the game. Deckarm replied that he saw no difficulty about this but a little later, he fell once again during an attack, lost consciousness and remained in a coma for several months. Today, he is still an invalid. He was probably the victim of concussion, provoked by his first fall, and the co-ordination problems which this led to prevented him from controlling his second fall; this could easily have been avoided if the doctor or trainer had allowed him sufficient time to rest.

Now let us broach the problem of doping and the dangers of illness run by athletes who use drugs. What exactly does the term “doping” cover? In the usual sense, it means all the products and medications whose effect is to increase muscular power tenfold and which are absorbed before and during an event. But this definition is already out of date; nowadays, by doping products we mean all the chemical agents which appear on the doping list. Obviously this is a much more practical definition. This list is often modified as new drugs appear.

Many people today are convinced that every effort must be made in order to win. By this fact, the result achieved during an event takes on an ever-increasing material, social and moral value. Thus one can understand how the desire to win can push young people to put their health at risk. Here is a significant example of what a competitor is capable of doing to achieve victory: during a modern pentathlon competition, the German competitor Thade pumped his intestines full of air in order to be able to swim more easily. Another example: in 1960 at Rome, during the world road cycling championships, the Danish cyclist Knud-Enmark died unexpectedly. At the autopsy, it was discovered that he had taken a very large quantity of doping products. It is from this date, what is more, that sports historians trace the emergence of the “doping phenomenon”.

I have already mentioned the existence of a list of doping products cataloging all the chemical agents and drugs which may be considered as such. Their number continues to grow, and the development of science and techniques leads to the diversification of products.

For the time being, the list in question contains the following chemical agents:

1. Chemical agents which directly stimulate the central nervous system (amphetamine derivatives, psychostimulants);
2. Sympatostimulants (stimulating the cardio-respiratory system);
3. Other stimulants of the nervous system;
4. Analgesic drugs, for example morphia;
5. Anabolic steroids.

Why do drugs and doping products have a harmful effect on health?

The central nervous system controls all the functions of the body and determines its ability to adapt itself to the outside world. It generates feelings of fatigue and pain long before the total exhaustion of the heart and lungs. This control system, which limits muscular activity, is inhibited by the absorption of drugs.

However, we know that good maintenance of physical condition can enable the sportsman to develop all his capacities, even if he is tired. What is more, the big champions have sufficient mental abilities to be able to recuperate instantly, even during an event. A tragic example may be quoted in this regard: in 460 BC, Ladas won the marathon. Worn out, he returned home where he died of exhaustion.

Nowadays, there is a clear preference amongst sportsmen for anabolic steroids. This is a considerable innovation since these substances are absorbed during training. Their aim is to reinforce the muscles and obtain an optimal synthesis of proteins and enzymes.

Anabolic steroids are hormones present in the male body. Their androgenous action has been clearly demonstrated. Amongst women they provoke virilisation and sterility and amongst men they impair genital function.

Unfortunately, the joints do not develop along with the increase in muscle size. Up until recently, another doping product has been in use, based on testosterone, a truly male hormone whose existence in the body could not be detected before 1982.

In 1980, at Moscow, 2,488 tests were carried out, of which 800 were aimed at proving that competitors had taken anabolic steroids. The results in all cases were negative. Does this mean that none of the competitors had used doping products? Certainly not.

If the analyses proved negative, it was because the prospective athletes had stopped taking the drug two or three months before the Games.

According to Professor Donike, 15 to 20% of the women who won medals had probably used testosterone. Daily use of steroids definitely leads to problems in liver function and hepatic deficiency.

Recently other products have come into use, such as diuretics, corticosteroids or caffeine, and there has even been recourse to blood transfusions. God knows what other substances are still being used!

It became a matter of urgency to make coaches, competitors and sports leaders understand that victory at any price cannot be a true source of satisfaction. Man has need of a balance which trickery cannot bring him.

Perhaps we could overcome present difficulties more easily if sportsmen were able to become aware from childhood of the dangers of abusive practices.

Let us hope that Quintilianus was right when he wrote, two thousand years ago, “It is during a game that moral qualities manifest themselves most sincerely”.

This is not the case today, but all our efforts should be directed towards the realisation of this ideal.

J. K.