

Spinal trauma

According to the ATLS manual. Describe the dermatomes and the myotomes corresponding to the following levels of spinal injury:

C5- dermatome= area over deltoid, myotome= shoulder abduction, (deltoid)

C7- dermatome= middle finger, myotome= elbow extension- (triceps)

T8- dermatome= xiphisternum, myotome= intercostals, (difficult to test)

T12- dermatome= pubis symphysis, myotome= intercostals and rectus abdominis, (difficult to test)

L4- dermatome= medial aspect of calf, myotome= knee extension, quadriceps

L5- dermatome= 1st web space toes, myotome= ankle and big toe dorsiflexion (tib ant and EHL)
partial knee flexion (hamstrings)

S1- dermatome= lateral aspect foot, myotome= ankle plantar flexors (gastrocnemius, soleus)

S4- dermatome= perianal region, myotome= levator ani, test on PR

8 points

Briefly describe the diagnostic features of the following injuries:

Anterior cord syndrome- Paraplegia with loss of pain and temperature, (vibration, proprioception and deep sensation are intact)

Brown-Sequard's syndrome- hemisection of the cord= ipsilateral paralysis and loss of proprioception, contralateral temperature and pain beginning at the level 1-2 below the injury, variations in extent are frequent

2 points

A 30 year old man presents to A&E c/o difficulty in breathing and generalised weakness. He is known to suffer from myasthenia gravis. List 4 other signs or symptoms of MG. 2 points

Ptosis
Diplopia
Weakness on exercise, improving with rest
Absent gag reflex
Improvement of symptoms in cold
Inability to cough

What two life threatening conditions could this patient suffer from and how could you distinguish between the two? 4 points

Myasthenia crisis
Cholinergic crisis
Give small dose of edrophonium- if pt improves= MG crisis, if worsens= cholinergic
If pt has ptosis- place ice pack over the eyes, improvement in MG crisis

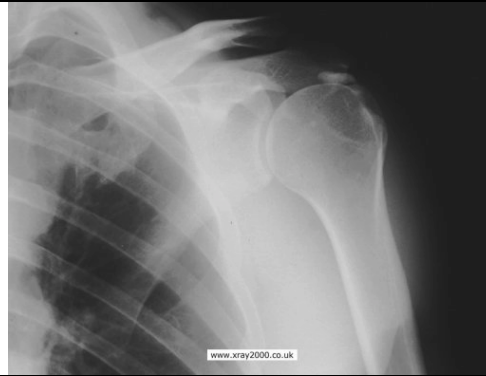
You put the O₂ on, IVA in situ, all the bloods and investigations are done. As you are waiting for the appropriate drugs the patient suddenly deteriorates and stops breathing. Anaesthetist is unavailable because they are in OT with a AAA. Briefly describe your management from then on quoting the necessary drugs and doses if possible. 3 points

Place pt in supine position and insert an oropharyngeal or nasopharyngeal airway.
Preoxygenate the patient for at least 1 min with BMV, maintain cricoid pressure at all times (personally I think that is load of cods wallop but most people are still insisting on it)
Procede to RSI-
Propofol 2-3mg/kg and atracurium 0.3-0.6 mg/kg or another non depolarising (-1 point for sucs)
Intubate with size 7-8 depending on pt, inflate cuff
Attach capnograph

What is the treatment for acute myasthenic crisis? 1 point

Edrophonium in small boluses, max 10 mg- monitor pt at all times for arrhythmias

Pt presented with a sore shoulder. What is the diagnosis?- 1 point
What syndrome might you elicit on examination and what is the syndrome? 2 points
What would be the initial treatment. 1 point



Clacific tendonitis

Painful arch syndrome- pain on shoulder abduction 60°-120°

Rest and NSAIDs eg ibuprofen 400-800 mg TDS

A 55 year old man comes in to the department c/o hand pain. It has been bothering him for a while but seemed to get worse today. It mainly seemed to bother him at night and has been affecting the palm of his hand and the middle 3 digits. Now it is also hurting his forearm. What is the likely diagnosis? 1 point

Name a sign you could elicit in A&E to “help” with the diagnosis and describe it. 1 points

Carpal Tunnel syndrome

*Tinnels sign- tap over median nerve causes paraesthesia in the hand
or*

Phalen sign- paraesthesia on hyperflexion for 60 secs

What might you find on examination which would confirm your suspicion. 2 points

Thenar wasting- in advanced cases

Reduced pain sensation on the palm over the median nerve distribution

Weakness of resisted thumb abduction

1 point for each

How would you treat it initially? 2 points

Splint the wrist and NSAIDs- e.g. ibuprofen 400-800mg TDS

A 20 year old girl presents with shortness of breath and generally feeling unwell. She has a long standing history of weight loss and polyarthropathy and was recently diagnosed with syphilis and started on antibiotics.

On admission you not a rash on R
 She is acutely SOB and her BP is 90/40, she remains afebrile. She has muffled heart sounds and appears to have dilated neck veins.
 Describe your initial management. 4 points



Give Oxygen
IV access
Bloods for FBC, U&Es, CRP, blood cultures and ABG
Order a CXr and an ECG
Minus a point for IV fluids

Her ECG looks like this:
 What is the likely cause for her current state? 1 point
 What urgent investigation and treatment is required? 2 points
 What is the likely diagnosis? 1 point



Pericardial effusion/tamponade- low voltage QRS, muffled heart sounds, distended neck veins, hypotension
ECHO and pericardiocentesis
SLE- typical rash [(less than 50% get the malar rash)= symmetric hyperpigmented plaques with scale, central hypopigmentation/depigmentation, follicular plugging, and atrophy], polyarthralgia, wt loss, +ve VDRL in a young woman

List 4 other complications of this condition 2 points

Pleural effusion
Mucocutaneous ulcers
Malar rash
Pyrexia of unknown origin
Pleuritis
Broncho pneumonia
Myocarditis, pericarditis, endocarditis, heart failure
Pretty much any sort of -itis by the look of things ☺

20 Sore joints

What are the 4 features of Reiter syndrome. 2 points

What is the original cause of it? 1 point

What is the treatment? 1 point

*Urethritis, Arthritis, Conjunctivitis (also keratitis, iritis, occasionally optic neuritis),
Skin and mucosal lesions
Chlamydial GUD or salmonell, shigella, campylobacter or yertsinia GIT infections
NSAIDs and reassurance- lasts 6/52 to 6/12*

A young boy presented with this rash and generally feeling unwell. He has a temperature, sore joints. What is the rash? 1 point
What is the diagnosis? 1 point
List 3 features, other than mentioned above, of the disease. 3 points
What is the treatment. 1 point



Erythaema marginatum

Rheumatic fever

*Subcutaneous nodules, carditis, chorea, 1st degree HB, recent URTI/pharyngitis
(H/O sore throat is missing in 20-30% of cases)*

Penicillin oral for 10 days or Penicillin G IM-2.4 milion IU once, also haloperidol for chorea, digoxin for heart failure