Starting a casting program

Lindsay Andras MD
1. Preparing the parents
2. Supplies
3. Preparing the team
4. Pitfalls to avoid
Preparing the parents

Youtube: Child with progressive scoliosis in a derotational cast
http://youtu.be/aBwEG6IEjgY
Preparing the parents
Website for infantile scoliosis outreach program
http://www.infantilescoliosis.org/index.html
(instructions on cast care and tips from parents)
Preparing the parents

• Instructions on changing jerseys
  - youtube video: http://youtu.be/dJKzjCxYX0M
  - handout

• Purchasing jerseys directly from knit-rite
  - email them for a provider code ($30/jersey)
Supplies

Slides down for casting

Can put patient to sleep directly on table

Robert Eldridge
Pillar Orthopedic Design L.L.C.
360-773-8779
http://www.pillarorthopedicdesign.com/
Supplies

• Jerseys
• Stockinette (Standard)
• Head Halter
• Synthetic Cast Padding
• Felt
• Cellona plaster (large and small rolls)
• Fiberglass (Standard)
• Staple gun (1/4” staples)
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<tr>
<th>Item</th>
<th>Vendor</th>
<th>Item#</th>
<th>Phone #</th>
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<tbody>
<tr>
<td>Head Halter-12 Per Box</td>
<td>Zimmer</td>
<td>0912</td>
<td>(801) 266-9292</td>
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<tr>
<td>Arrow Staples</td>
<td>Home Depot</td>
<td>JT21=1/4&quot; (VERY IMPORTANT)</td>
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<td>Cotton Undercast Padding 2&quot;, Specialist 100, Blue Package</td>
<td>BSN Medical</td>
<td>9082</td>
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<tr>
<td>Cotton Undercast Padding 4&quot;, Specialist 100, Blue Package</td>
<td>BSN Medical</td>
<td>9084</td>
<td>(800) 552-1157</td>
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<td>1/4&quot; Felt Padding</td>
<td>Cascade Orthopedic Supply</td>
<td>WPF-250, order by the yard</td>
<td>(800) 888-0865</td>
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<td>Knit-Rite</td>
<td>1BX1BTSM</td>
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<tr>
<td>Torso Interface, Turtleneck with X-Static, Size Medium</td>
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<td>1BX1BTMD</td>
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<td>Cellona Extra Creamy Plaster Bandages, 4&quot;</td>
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<td>20302</td>
<td>(888) 938-7828</td>
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Preparing the team

Find out who is going to do the anesthesia and have them talk to an anesthesiologist at a place that casts regularly

Dr. Cyrus Kermani
ckermani@chla.usc.edu
Preparing the team

Lay out supplies and Write Out Steps

1. 2 layers stockinette
2. Transfer to casting table
3. Tie hips to table (cross over iliac crest)
4. Apply head halter traction
5. Secure arms- concave higher than convex
6. Felt pads
7. Wrap with cast padding
8. Practice Mold
9. Plasters sheaths on front and back
10. Wrap with plaster rolls
11. 3 person mold
12. Overwrap with fiberglass
13. Overwrap with wet Ace
14. Transfer back to bed
15. Cut out abdominal window, bottom, neck, arms, back window
16. Staple and moleskin
Preparing the team

Practice Run

Tell them it will take 3 hours
(usually takes a little under 2 hrs)
Preparing the team

1. Counter traction on convex shoulder (least experienced person)
2. Hip Mold
3. Flexion Derotation (attending)

3 people to mold- Practice after cast padding is rolled before plaster
Pitfall 1

Not cutting stockinette long enough to go over head/hair
Pitfall 2
Well padded kids

19 mo with arthrogryposis

Chubby thighs Above the level of Iliac crest when sitting= impossible to mold

6 yo with Prader Willi that weighs 110lbs= Epic Cast Failure
Pitfall 3
High riding casts

2 yo male with 100 degree thoracic curve (MRI negative)
Pitfall 3
High riding casts

Arms positioned too high when casting

Not enough iliac crest mold

Better molding
4yo male with VATER syndrome and hemivertebrae at thoracolumbar junction

Seen at 6 mo
Lost to followup
4yo male with VATER syndrome and hemivertebrae at thoracolumbar junction.

Nov 2012

Oct 2013 after hemivertebrectomy and limited fusion (plan to continue casting)
THANKS to David Skaggs, Vernon Tolo, Paul Choi and Jacques D’Astous