Question 1:
What is the risk of rib fracture after SBRT (peripheral tumors \(<5\) cm in size)?

- a) 2%
- b) 5%
- c) 10%
- d) 15%

Answer: b

Feedback:
The data in the literature show that the risk of rib fracture is approximately 5% for peripheral tumors \(<5\) cm in size.

Location: slide 24; answer on 26

Reference:

Question 2:
Which of the following has been shown to increase the risk of a carotid blowout after SBRT/SABR for recurrent head and neck cancer?

- a) Tumor surrounding carotid artery \(\geq 180^\circ\)
- b) Prior head and neck surgery
- c) Atherosclerotic carotid artery
- d) Use of concurrent cetuximab

Answer: a

Feedback:
Tumor surrounding carotid artery \(\geq 180^\circ\) has been shown to be one of the risk factors for carotid blowout. Others have not been identified as risk factors.

Reference:

Question 3:

Which of the following factors will increase the risk of small bowel toxicities caused by SBRT/ SABR?

a) Use of Vascular Endothelial Growth Factor Inhibitor (VEGF-I) before abdominal SBRT/ SABR
b) Use of Vascular Endothelial Growth Factor Inhibitor (VEGF-I) after abdominal SBRT/ SABR
c) Maximum point dose of 25 Gy in 5 fractions
d) Previous bowel surgery

Answer: b

Feedback:
The use of VEGF-I after abdominal SBRT may increase the risk of small bowel injury

Location:
Slides no. 42 for Question and 43 for Answer.

Reference:

Question 4:

Risk factor(s) for vertebral compression fracture after SBRT for spinal metastases include:

a) High dose single fraction SBRT of 20 Gy or more
b) Gender
c) Epidural disease
d) Targeted agent within 2 months before SBRT

Answer: a

Feedback:
The dose per fraction has been identified as a risk factor for spine SBRT and explains why reports using 20 Gy in 1 show an approximate risk of 20% for VCF and 40% with 24 Gy in 1.

Reference:
Serious Toxicities Associated With Stereotactic Body Radiotherapy (SBRT) and Strategies To Reduce The Risks

Ben Slotman, M.D., Ph.D., Simon S. Lo, M.D., FACR, Bin S. Teh, M.D., FACR, Arjun Sahgal, M.D., FRCPC

Question 5:

Which of the following will predict delayed rectal toxicities (assuming 5 fractions)?

a) % circumference receiving 39 Gy
b) % circumference receiving 24 Gy
c) Diabetes
d) Age > 65

Answer: a

Feedback:
% circumference receiving 39 Gy predicts delayed rectal toxicities. % circumference receiving 24 Gy predicts acute but not delayed rectal toxicities. Diabetes does not predict acute or delayed rectal toxicities.

Reference: