GLUBRAN®2

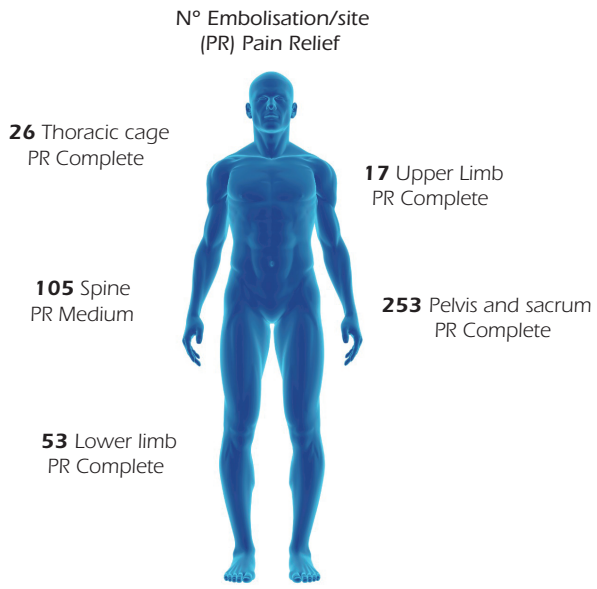
Liquid embolic agent for Interventional Radiology

Selective arterial embolisation for bone tumours
Experience of 454 cases

Rossi G. et al. Radiol Med. 2011 Aug;116(5):793-808

Embolisations used as primary treatment for benign bone tumours, adjuvant treatment to surgery for benign and malignant bone tumours and palliative treatment for bone sarcomas and metastases.

Primary Tumour	Patients	Embolization		
		1	2	≥3
Bone metastases	243	187	46	10
Aneurysmal bone cyst	36	22	9	5
Osteosarcoma	24	17	6	1
Giant-cell tumour	23	9	8	6
Vertebral haemangiomas	16	15	-	1
Chordoma	5	3	2	-
Haemangioendothelioma of bone	5	2	-	3
Osteoblastoma	4	2	2	-
Haemangiopericytoma	3	-	1	2
Paraganglioma	2	1	-	1
Ependymoma	1	-	1	-
Malignant schwannoma	1	1	-	-
Plasmacytoma	1	1	-	-



Aim

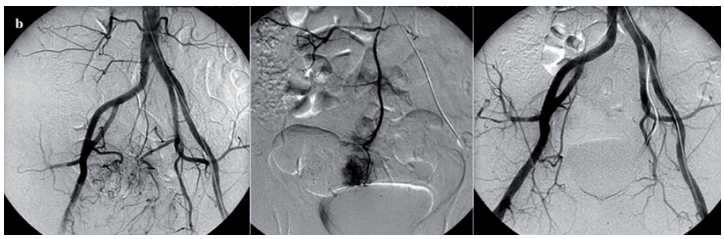
Devascularise and maintain ischaemia and necrosis in the centre of the tumour by occluding small distal branches inside the tumour.

Embolising agent

Glubran® 2 diluted in Lipiodol® (mixture 1:2). Sandwiched with 5% glucosate solution to prevent polymerization with blood through the catheter.

Why Glubran® 2?

- controlled embolisation of the pathological tumour vasculature
- permanent occlusion of the target vessels
- complete lesion devascularisation
- low number of complications, all minor



Giant-cell tumour of the sacrum
Preoperative selective angiography and embolisation of the feeding vessels originating from the internal iliac arteries (left) and middle sacral artery (centre). Postembolisation angiography (right) showed complete occlusion of the tumour vessels

	Decrease of tumour diameter (%)	Variable ossification* (n. pt)	Duration of pain relief Mean (month)
Bone metastases	30	65	8,1 (1-12)

* Imaging tumour response was evaluated on computed tomography (CT) scans obtained at 3, 6 and 12 month or at the latest follow-up by hypoattenuating areas within the tumour that resembled necrosis, tumour size and ossification

Results

- Clinical response achieved in 97% (406) of the procedures
- Technical successful in 93% (419) of the procedures
- Selective catheterization and embolisation of the feeding vessels was achieved in all cases
- Response time within 15 days
- Complete interruption of metastatic blood supply and >80% devascularisation of the tumour in all cases

Conclusions

Embolisation recommended for highly vascular tumours of variable histology as primary or palliative treatment or as an adjunct to surgery to reduce intraoperative blood loss and facilitate resection.

Glubran® 2 is considered the most appropriate embolic agent for small-vessel occlusion without major causing complications.

GEM

20th years of worldwide experience