

Table S1 Severity grading of CM-induced hypersensitivity reactions

Severity grade	Clinical symptoms
0 - unknown	No documented clinical symptoms
I - mild	Itching, limited urticaria and angioedema
II - moderate	Dyspnea, bronchoconstriction, hypotension, and tachycardia
III - severe	Therapy refractory clinical features, dyspnea, sudden drop of the blood pressure, cardiac arrest, loss of consciousness

CM, contrast media.

Table S2 Number of BTRs per patient in South Korea and Switzerland

Absolute number of BTRs	Seoul (South Korea)	Bern (Switzerland)
1 BTR	281 (69.0)	38 (100.0)
2 BTR	73 (17.9)	0
3 BTR	22 (5.4)	0
4 BTR	14 (3.4)	0
5 BTR	8 (2.0)	0
6 BTR	6 (1.5)	0
7 BTR	0 (0)	0
8 BTR	1 (0.2)	0
9 BTR	0 (0)	0
10 BTR	2 (0.5)	0

Data are presented as n (%). BTRs, breakthrough reactions.

Table S3 Data of seven individual Pat of South Korea with a minimum of six BTRs following the application of ICM

Parameter	Pat 1	Pat 2	Pat 3	Pat 4	Pat 5	Pat 6	Pat 7
Age/sex	71/f	66/f	57/m	78/f	38/m	57/m	46/m
Index [severity]	lohexol [1]	lopromid [1]	lohexol [1]	loversol [1]	lohexol [1]	lohexol [1]	lobitridol [1]
1 BTR [severity]	lobitridol [1]	lobitridol [1]	lohexol [1]	lopamidol [2]	lobitridol [1]	lobitridol [1]	lohexol [1]
2 BTR [severity]	lopamidol [1]	lohexol [2]	lobitridol [1]	lohexol [1]	lohexol [1]	loversol [1]	lopamidol [1]
3 BTR [severity]	lopamidol [1]	lopamidol [1]	loversol [1]	lopamidol [2]	lohexol [1]	lobitridol [1]	loversol [1]
4 BTR [severity]	loversol [1]	lohexol [1]	lohexol [2]	lopromid [2]	lohexol [1]	lohexol [1]	lopamidol [1]
5 BTR [severity]	lohexol [1]	lopromid [1]	lohexol [1]	lobitridol [1]	loversol [1]	lopamidol [1]	lodixanol [1]
6 BTR [severity]	lobitridol [1]	loversol [1]	lohexol [1]	loversol [1]	loversol [1]	lomeprol [1]	lodixanol [2]
7 BTR [severity]				lobitridol [1]	loversol [1]	lopromid [1]	lodixanol [2]
8 BTR [severity]				lomeprol [1]	loversol [1]	lobitridol [1]	lodixanol [2]
9 BTR [severity]						loversol [1]	lodixanol [1]
10 BTR [severity]						loversol [1]	lodixanol [2]
Number of different culprit ICMs	4	5	3	6	3	6	5
Number of different culprit ICM-groups	3	3	2	3	2	3	3

Pat, patients; BTR, breakthrough reaction; ICM, iodinated contrast media.