

1 **Supplementary Material –**

2 **Supplementary Table 1.** Selected prospective observational studies on iodine-based contrast
 3 media-induced thyroid dysfunction
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Study	Country	Studied group (n=)	Duration of follow-up	ICM-induced thyroid dysfunction			
				SHyper	OHyper	SHypo	OHypo
Bonelli et al [30]	Italy	810*	1 year	74 (9.1%)	7 (0.8%)	18 (2.2%)	2 (0.2%)
Hintze et al [60]	Germany	788**	12 weeks	27 (4.9%)	3 (0.4%)	3 (0.4%) #	10 (1.4%)#
Özkan et al. [88]	Turkey	101	8 weeks	7 (6.9%)	0	0	0
Skórkowska-Telichowska et al. [89]	Poland	59	6 months	3 (5%)	6 (10.1%)	1 (1.7%)	0
Lee et al. [46]	USA	49	4 weeks	4 (8.1%)	1 (2.0%)	2 (4.1%)	4 (8.1%)
Koroscil et al. [44]	USA	56	1 week	0	0	3 (5.4%)	0
Mekaru et al. [56]	Japan	180***	18–82 days	2 (1.1%)	0	28 (15.6%)	4 (2.2%)
Jarvis et al. [90]	New Zealand	102	8-weeks	2 (2%)	0	0	0
Conn et al. [91]	Australia	73	8 weeks	4 (5.4%)##	2 (2.7%)	0	0

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 6 SHyper -subclinical hyperthyroidism, OHyper - overt hyperthyroidism, SHypo – subclinical hypothyroidism,
 7 OHypo – overt hypothyroidism;

8 *at baseline 58 patients (7.2%) had Hyper (55 subclinical and 3 overt) and 29 patients (3.5%) had Hypo (27
 9 subclinical and 2 overt).

10 ** at baseline 3.8% had SHyper, 0.1% - OHyper, 4.2% - SHypo, 0.3% - OHypo.

11 *** euthyroid women after hysterosalpingography (HSG) using lipiodol

12 # measured 7 days after coronary angiography, details on the development of SHypo and OHypo were not
 13 described in detail

14 ## defined as TSH suppression or FT4 elevation
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16 **Supplementary Table 2.** Selected case reports on ICM-induced Hyper.

Study, Country	Case	Time after ICM exposure	Clinical picture	Etiology	Treatment
Brundridge et al., USA [38]	34-year-old man**	~10 hours after CT scan	Cardiogenic shock secondary to thyroid storm.	GD	PTU 600 mg/day, esmolol iv, in addition to phenylephrine, hydrocortisone and vasopressin infusion.
Alkhuja et al., USA [37]	53-year-old woman**	minutes after CT scan	Thyroid storm complicated by cardiac arrest, pulmonary edema, and acute respiratory failure.	GD	Cardiopulmonary resuscitation, methimazole (80 mg/day via oral-gastric tube, propranolol
Ledingham et al., UK [92]	76-year-old man**	2 months after coronary angiography	Atrial fibrillation (AF) and episodes of angina	Large TMNG	Prednisolone, PTU, (planned treatment with radioiodine), several rate-limiting agents, antianginal medications and warfarin
Iakovou et al., Greece [93]	66 year-old woman*	less than 24 h after CT	Typical symptoms of thyrotoxicosis	Large MNG and AITD (GD?)	β -adrenergic blocking agent and thiamazole
Bish et al., USA [36]	45-year-old woman***	several hours after CA and urgent coronary artery bypass grafting	Thyroid storm	GD	Potassium iodide, methimazole through a nasogastric tube, hydrocortisone intravenously, vasopressors
Ma et al., China [94]	33-year-old woman*	1 week after HSG	Typical symptoms of thyrotoxicosis	?	Metoprolol. The patient recovered spontaneously
Dunne et al., UK [95]	72-year-old man*	A few days after elective CA	Left ventricular failure	TMNG and destructive thyroiditis	Carbimazole
Mushtaq et al., Australia [96]	76-year-old man#	After multiple CT's during oncological treatment	AF, lethargy, and weight loss.	?	Carbimazole (30 mg/day) + lithium 500 mg/day
Dave et al., USA [97]	53-year-old woman#	2 months after CT	AF, dizziness, shortness of breath and chest pain.	Jod-Basedow syndrome	Diltiazem infusion. Spontaneous resolution of Hyper without ATD 16 days later
Arlt et al., Germany [98]	56-year old woman*	14 days after CT	Rapid mood swing to mania and subsequent psychotic depression	Hashimoto thyroiditis	Thiamazole and prednisolone

17 * - Euthyroid prior to ICM exposure; ** - Hyperthyroid prior to ICM exposure; *** - Uncertain thyroid status prior to ICM
18 exposure; # - a patient without any of the typical risk factors for ICM-induced Hyper
19 CT- computed tomography, CA - coronary angiography, HSG – hysterosalpingography, GD – Graves' disease, MNG –
20 multinodular goiter, TMNG toxic multinodular goiter, ATD – anti-thyroid drugs
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