

Table . Characteristics of Microspheres in Chemoembolization

Embolic material	Drug loading	Bio-degradation	Retention term	Mean size (μm)	Kinetic drug release
Degradable starch microsphere	X	○	within 2 h	45-50	
Albumin microcapsules	○	○	a few weeks	10-50	short-term sustained release
Gelatin sponge	X	○	weeks to months	2-5 mm	
PLA, PLGA	○	○	a few days to months	100-200	sustained release
Ethylcellulose microcapsules	○	X	permanent	200-300	burst effect
Wax	○	X	permanent	200-400	sustained release
Lipiodol	○	X	more than 7 days	–	
Liposome	○	○		0.8-1	
Lipid emulsion	○	X		70	sustained release

PLA, Poly (D, L-lactide) ; PLGA, poly(lactic-co-glycolic acid) .

Assemble → Disassemble → Reassemble

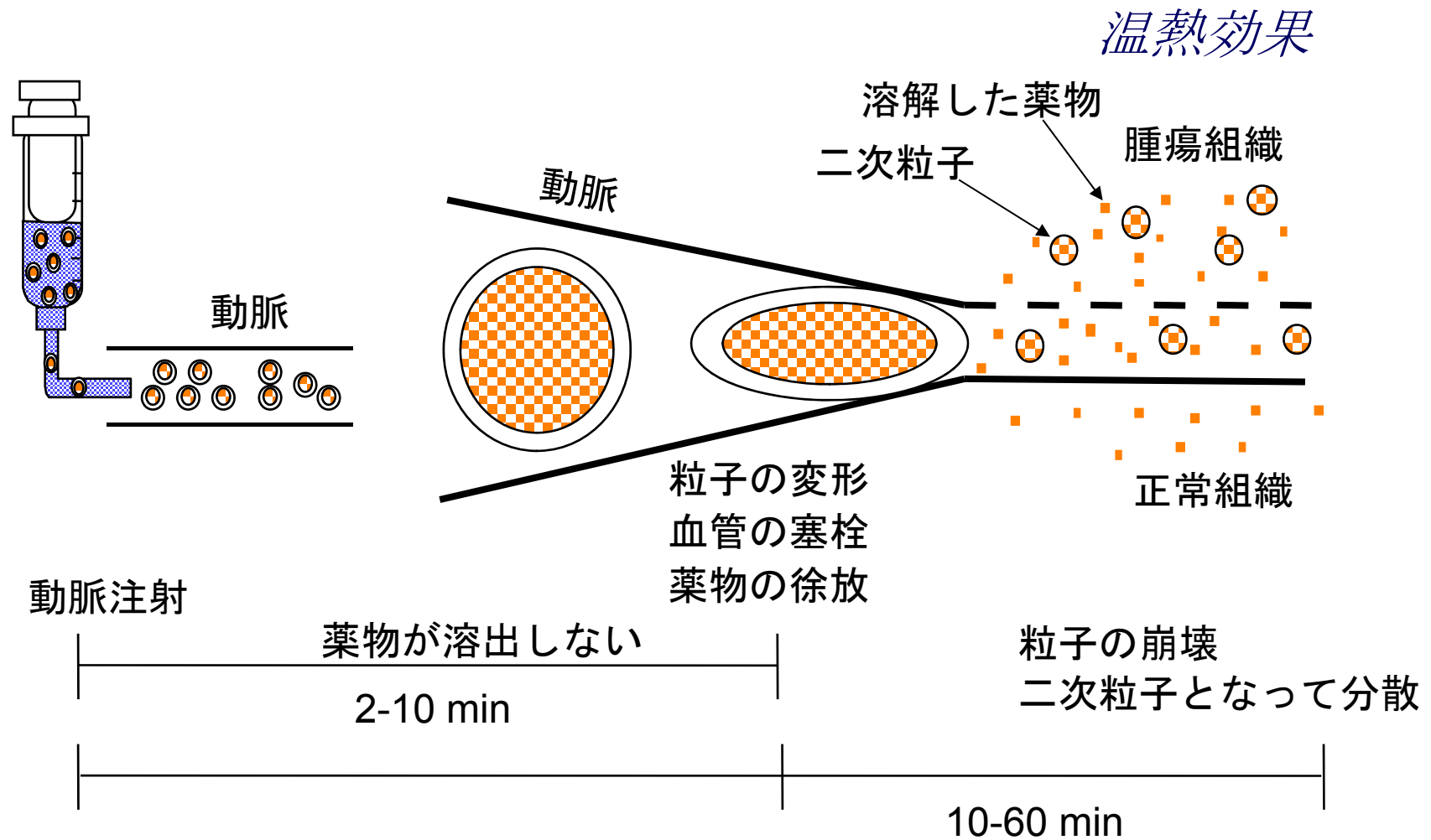
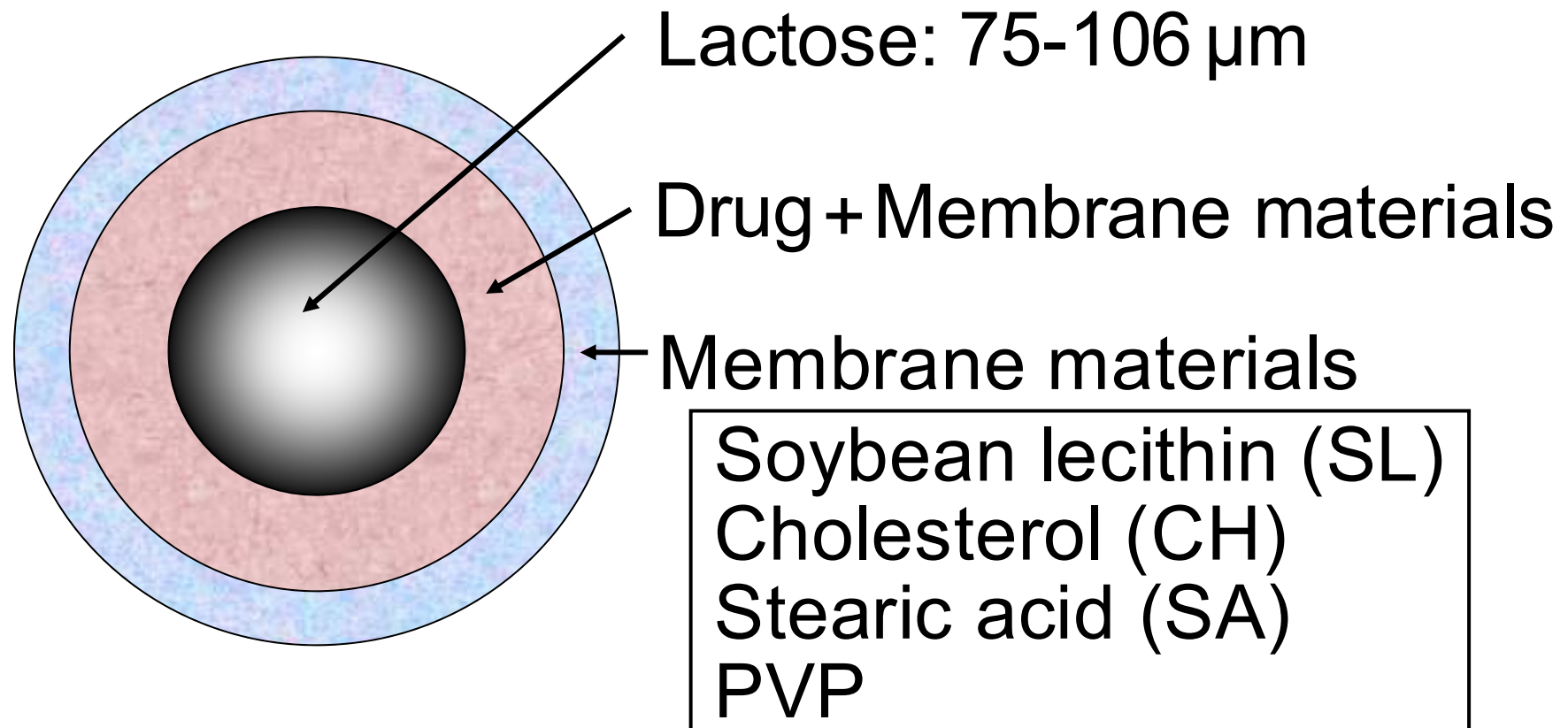


図. 癌化学塞栓療法のプロセス



Microcapsule for Chemoembolization Therapy of Cancer

Kaori Jono, Hideki Ichikawa, Yoshinobu Fukumori, Ryuichi Kanamori, Yasuji Tsutsumi, Katsuko Murata, Atsuko Morimoto, Kenji Nakamura. Effect of Additives on Dissolution and Swelling of Soybean Lecithin Microcapsules Prepared Using the Wurster Process, Chem. Pharm. Bull., 45 (12), 2061-2075 (1997).

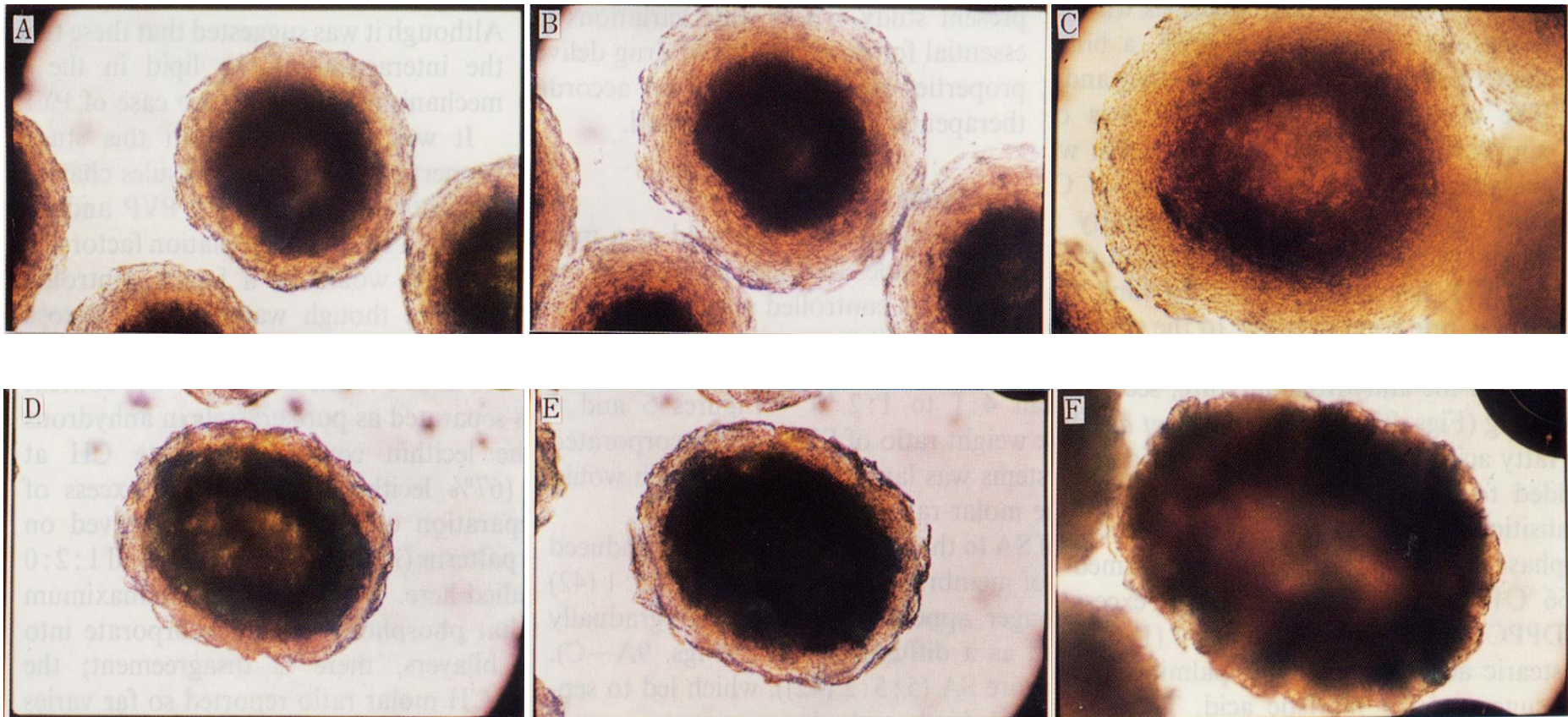
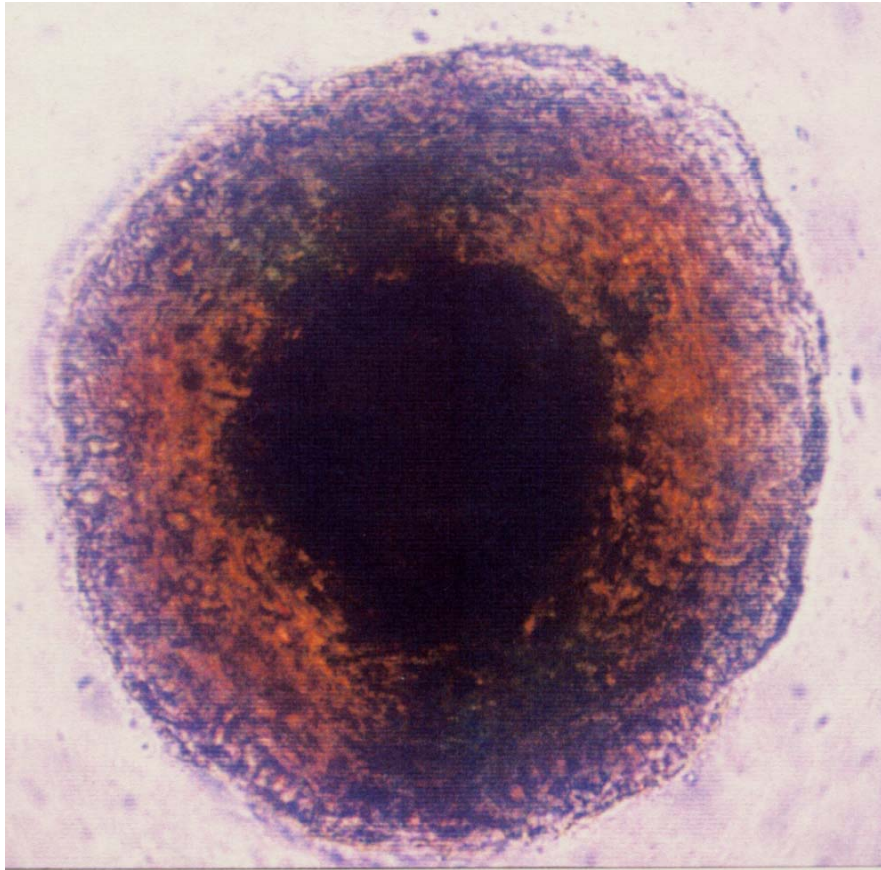
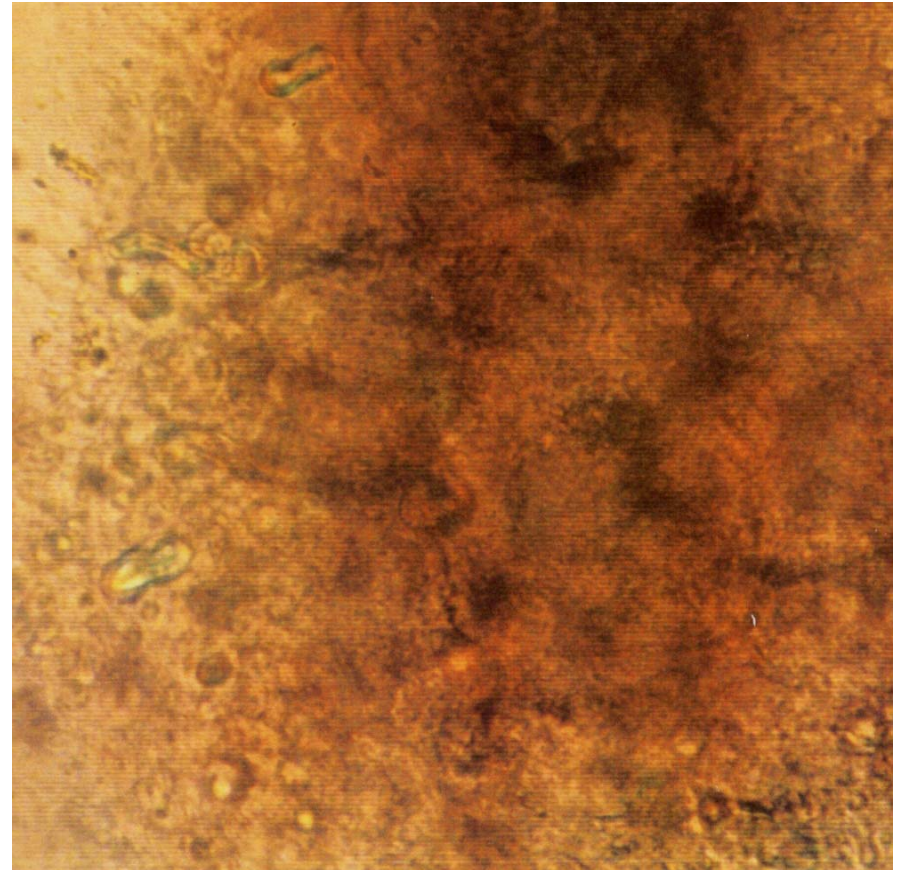


Fig. 9. Microcapsules with Different Content of SA Immersed in a 0.9% Saline Solution at 37°C

Magnification: $\times 100$. Coating level: 200%. Membrane composition [time (min) after initial immersion]: A, 5:5:1 (42) [3]; B, 5:5:1 (42) [10]; C, 5:5:1 (42) [60]; D, 5:5:2 (42) [3]; E, 5:5:2 (42) [10]; F, 5:5:2 (42) [60].



3 min



30 min

In plasma