e.p.t.q. is safe with lower MoD than the other fillers. The low MoD value is the standard for a safe filler.

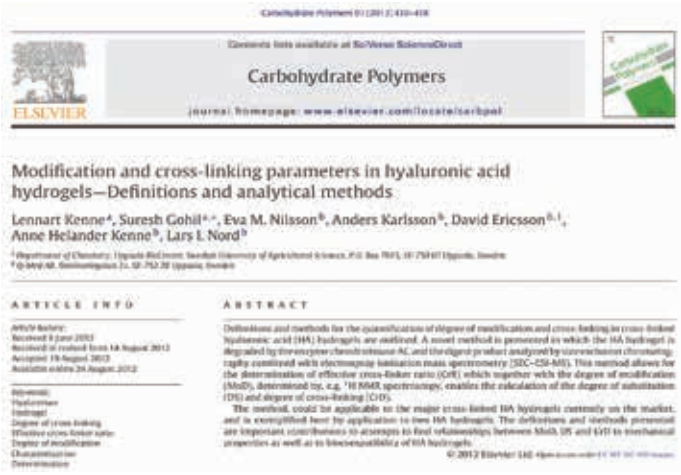
e.p.t.q.

DNA TECHNOLOGIES

MoD

(Degree of Modification)

Total amount of BDDE in a hyaluronic acid filler



Carbohydrate Polymers

Modification and cross-linking parameters in hyaluronic acid hydrogels—Definitions and analytical methods

Lennart Kenne[a], Suresh Gohil[a,*], Eva M. Nilsson[b], Anders Karlsson[b], David Ericsson[b,1], Anne Helander Kenne[b], Lars I. Nord[b]

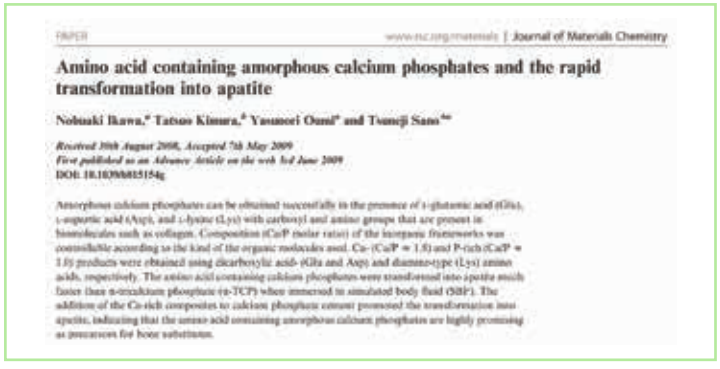
Sample	e.p.t.q. S 100	e.p.t.q. S 300	e.p.t.q. S 500	Product A	Product B	Product C
MoD (%)	1.18	1.53	**1.89**	7.68	11.23	8.07

e.p.t.q. Through the 9 Essential process, e.p.t.q. has no calcification by eliminating the by-product combination reaction.

e.p.t.q.

※ Calcification ?

Calcification is a major cause of nodules formation caused by combining carboxyl groups in HA and byproducts of the filler manufacturing process.



Journal of Materials Chemistry

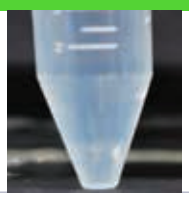
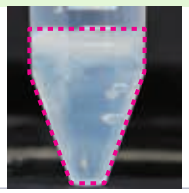
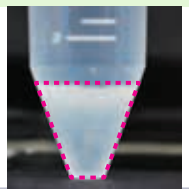
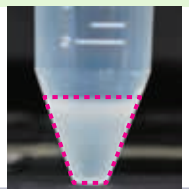
Amino acid containing amorphous calcium phosphates and the rapid transformation into apatite

Nobuaki Ikawa,[a] Tatsuo Kimura,[b] Yasunori Oumi[a] and Tsuneji Sano[*a]

Rank	reaction	ratio	Solution
1	Inflammation	23.7 %	Low MoD
2	Edema	11.2 %	Low MoD
3	Necrosis	9.1 %	
4	Bruise	8.6 %	
5	**Nodule**	**8.2 %**	**Calcification prevention**
6	Others	39.2 %	
		100.0 %	

Ref. Nobuaki Ikawa et al, 2009

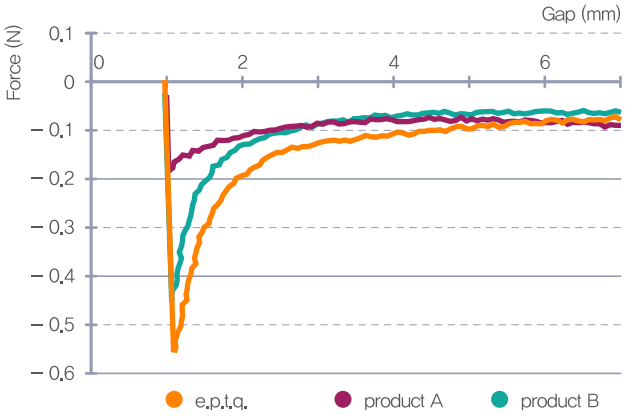
Ref. Types of side effect by the dermal filler, KFDA, 2014

Reaction time	Result of Calcification reaction			
	e.p.t.q.	product A	product B	product C
Day 4				

Ref. Calcification reaction experiment in HA filler, 2019 Jetema Co., Polymer Lab

e.p.t.q. has less migration due to high cohesiveness. It is good for shaping and long-lasting effect.

e.p.t.q.



※ Experimental conditions
Instrument : Rheometer, Kinexus, Malvern, U.K.)
Corn: 20 mm, stainless steel plate
Mode: pull away / Speed: 100 ㎛/s / Inversed gap: 1 mm / Temp.: 25 ℃

※ e.p.t.q. is −0.3666 and −0.1104 superior to A and B as a result of Tack test

Sample	e.p.t.q.	Product A	Product B
Cohesiveness (N)	**-0.5583**	-0.1917	-0.4479

Ref. Comparison of properties of Dermal HA filler, Department of Dermatology, College of Medicine, Chung-ang University, 2017

e.p.t.q. has proven to be equal to or better than the control group in Researcher evaluation and Patient satisfaction evaluation.

e.p.t.q.

※ In order to demonstrate the efficacy and safety of e.p.t.q. S500 and Product R, we conducted a single-institution, randomized, double-blind and matched-pair phase 3 clinical trial for 63 subjects.

Researcher evaluation(WSRS)

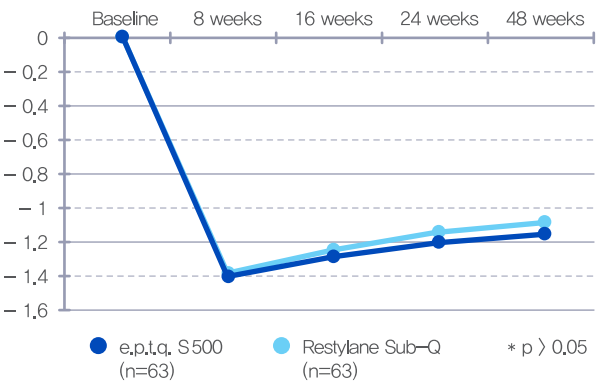


Figure 1. Changes in WSRS mean value at 8, 16, 24 and 48 weeks compared to baseline assessed by blinded investigators

Patient satisfaction(GAIS)

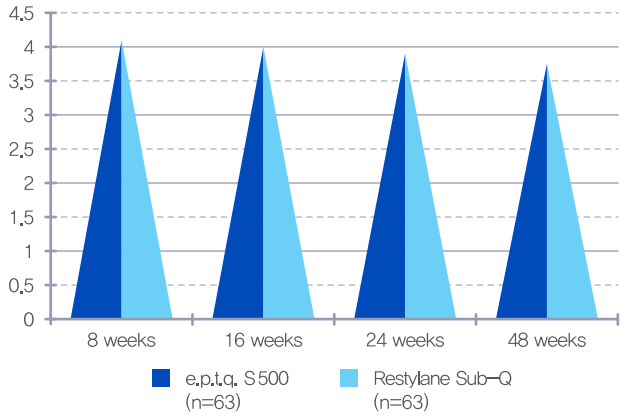


Figure 2. GAIS mean values at 8, 16, 24 and 48 weeks evaluated by subjects

Ref. Department of Dermatology, College of Medicine, Chung-ang University, 2016