Supplementary

Heterogeneity analysis for subgroup analysis of treatment response in the initial *vs.* additional group

There was medium heterogeneity in the meta-analysis for using IFX plus IVIG as an initial therapy compared with IVIG therapy alone. The cause of heterogeneity is the study of Tremoulet *et al.* (9), we compared the differences between this study and others intensively and found that the diagnostic criteria and treatment method in this paper were different from other studies. The study of Tremoulet *et al.* (9) follows the American Heart Association case definitions, while other studies follow the Japanese criteria. In addition, this article is different from other articles in the design of the experimental group. Therefore, we remove the study of Tremoulet *et al.* (9), and make meta-analysis again, we found that using IFX plus IVIG as an initial therapy strategy showed greatly effect on the treatment response compared with IVIG therapy alone (OR, 4.18; 95% CI: 2.39–7.32; P<0.00001; random-effects model). However, using IFX as an additional therapy after failure of IVIG treatment did not show statistical significance compared with additional IVIG therapy (OR, 2.11; 95% CI, 0.93–4.82; P=0.07; random-effects model), and there was no heterogeneity in this analysis after remove the study of Tremoulet *et al.* (9) (Figure S1).

The meta-analysis for hospital stays

The pooled analysis for hospital stays showed that adjunctive IFX therapy was associated with fewer days than IVIG alone {mean [SD], 7.33 [1.84] days in the IFX group *vs.* 8.54 [1.24] days in the IVIG group; mean difference, −1.60; 95% CI: −2.07 to −1.14; P<0.00001, random-effects model} (*Figure S2*). And there was medium heterogeneity in this meta-analysis (Chi^2=9.85; df =4; I^2=59%).

References

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Table S1 Electronic search strategies

ID number	Search hits
PubMed search strategy description (data May 30, 2019)	
1	“Infant”
2	“Child” or “children” or “Preschool”
3	1 or 2
4	“Mucocutaneous Lymph Node Syndrome”
5	“Kawasaki Syndrome” OR “Kawasaki Disease”
6	4 or 5
7	"Infliximab"
8	“Monoclonal Antibody cA2” OR “Renflexis” OR
9	“Inflectra” OR “Remicade”
10	7 or 8
11	"Tumor Necrosis Factor-alpha"
12	“Cachectin” OR “Cachectin Tumor Necrosis Factor” OR “Tumor Necrosis Factor Ligand Superfamily Member 2” OR “Tumor Necrosis Factor” OR “TNF Superfamily, Member 2” OR “TNF-alpha”
13	10 or 11
14	3 and 6 and 9 and 12
Embase search strategy description (data May 30, 2019)	
1	“infant”
2	“child”
3	“children”
4	“#4 #1 OR #2 OR #3
5	“Kawasaki Disease”
6	“Kawasaki Syndrome”
7	“Mucocutaneous Lymph Node Syndrome”
8	“#8 #5 OR #6 OR #7
9	“Infliximab”
10	“Monoclonal Antibody cA2”
11	“Renflexis”
12	“Inflectra”
13	“Remicade”
14	#9 OR #10 OR #11 OR #12 OR #13
15	“Tumor Necrosis Factor-alpha”
16	“Cachectin Tumor Necrosis Factor”
17	“Tumor Necrosis Factor Ligand Superfamily Member 2”
18	“Tumor Necrosis Factor”
19	“TNF Superfamily, Member 2”
20	“TNF-alpha”
21	#15 OR #16 OR #17 OR #18 OR #18 OR #19 OR #20
Cochrane Library search strategy description (data May 30, 2019)	
1	infant OR child OR children
2	mucocutaneous Lymph Node Syndrome OR Kawasaki Syndrome OR Kawasaki Disease
3	Infliximab OR Monoclonal Antibody cA2 OR Renflexis OR Inflectra OR Remicade
4	Tumor Necrosis Factor-alpha OR Cachectin OR Cachectin Tumor Necrosis Factor OR Tumor Necrosis Factor Ligand Superfamily Member 2 OR Tumor Necrosis Factor OR TNF Superfamily, Member 2 OR TNF-alpha

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Table S2 The excluded studies from our meta-analysis after reassessment of full-text articles

Study	Reasons
(28)	Different outcome assessments
(29)	Did not report the outcomes of treatment
(27)	Not a comparative study
(30)	Different outcome assessments
(31)	Not a comparative study
(32)	Before and after comparison of infliximab
(33)	Not a comparative study
(34)	Different outcome assessments
(35)	Different outcome assessments

Table S3 Methodological quality assessment of included studies

Study	Randomized trial?	Clear definition of study population?	Blinded of participants?	Blinded assessment of outcome?	Complete outcome data?	Free of selective reporting	Other potential bias controlled?	Score
Han *et al.* (17), 2018	Yes	Yes	NR	Yes	Yes	Yes	Yes	6
Jone *et al.* (18), 2018	No	No	NR	NR	Yes	Yes	NR	3
Nagatomo *et al.* (19), 2017	No	No	NR	NR	Yes	Yes	Yes	3
Youn *et al.* (20), 2016	No	No	NR	Yes	Yes	Yes	Yes	4
Tremoulet *et al.* (9), 2014	Yes	Yes	Yes	NR	Yes	Yes	Yes	6
Son *et al.* (21), 2010	No	No	NR	NR	Yes	Yes	Yes	3
Hirono *et al.* (8), 2009	No	No	NR	NR	Yes	Yes	Yes	3
Burns *et al.* (7), 2008	Yes	Yes	NR	NR	Yes	Yes	Yes	5
Mori *et al.* (22), 2017	Yes	Yes	Yes	Yes	NR	Yes	Yes	6

The full score of the methodological quality was 7 points; studies with 5 or more points were considered to have medium-high quality. NR, not reported.

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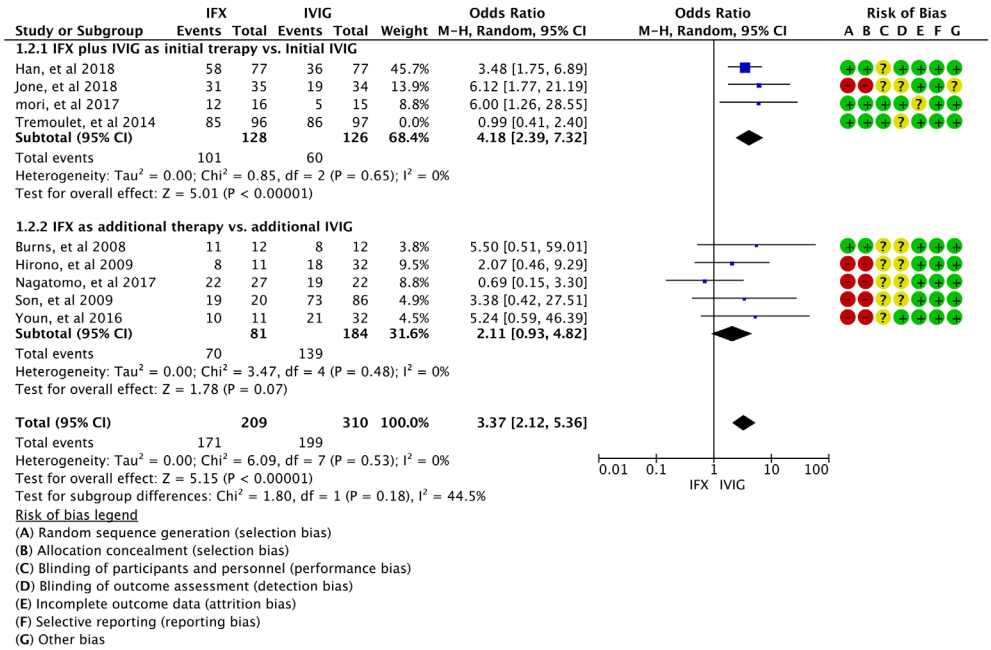

Figure S1 Subgroup meta-analysis of using IFX for treatment response after removal of the study of Tremoulet *et al.*

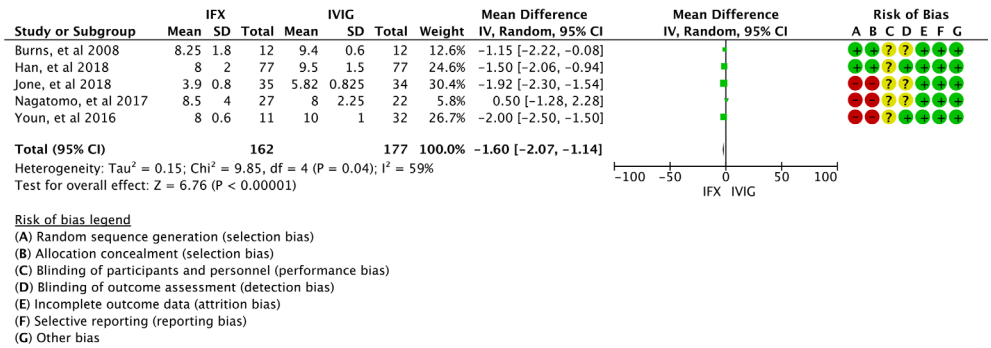

Figure S2 Meta-analysis for hospital stay.

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