

Type 2 Case of Yasui Classification

*Two Cases of Acute or Subacute Polyarthralgia
Successfully Treated with Boiogito Extract*

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Background

Many patients with polyarthralgias see doctors every day all over the world. We must exclude many differential diagnoses such as collagen diseases, especially rheumatoid arthritis; however, it is sometimes difficult to identify the causes. In the cases of acute or subacute stage in particular, it is assumed that some sort of viruses cause these symptoms. Nevertheless, we sometimes prescribe Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) only because it is difficult to identify the causes, moreover, most of antiviral drugs are ineffective for these viruses. We experienced two cases of acute or subacute polyarthralgia successfully treated with *boiogito* extract. It is suggested that *boiogito* extract is useful for nonspecific polyarthralgia.

Case report

Case1: 39 year-old male

[Main complaint]

Polyarthralgia, fever

[Past history]

Operated on testicular torsion when in junior high school

[Medicine(/day)]

Celecoxib (100mg) 2T, Famotidine (20mg) 1T

[Life history]

Non-smoker, social drinker, doesn't have any pets, no overseas travelling.

Job: a nurse of mental hospital

[Present illness]

He felt arthralgias on his wrists and knees from a few weeks ago. He supposed they were due to the training at fitness club at first; however, his legs got swollen from knees to feet. A local orthopedist said to him that his X-ray examination had no problems.

Because of elevation of WBC (15,490/ μ L) and CRP (7.94mg/dL), moreover, limited effect of Celecoxib for his arthralgias made another local doctor introduced us on May 26, 20XX.

[Physical findings]

His body temperature hovered around 37 degrees (Celsius).

He had limitations on range of motion of bilateral shoulders, elbows, and knees.

His legs were slightly edematous.

He had no tenderness of upper extremities, no nail changes, no rashes.

[Urinalysis] protein (-), sugar (-)

[CBC] WBC 13,840/ μ L, RBC 512 \times 10⁴/ μ L, HGB 15.1g/dL, PLT 45.0 \times 10⁴/ μ L

[Biochemistry] ESR 46mm/h, AST 15U/L, ALT10U/L, LDH 157U/L, γ GTP 31U/L, ALB 3.6g/dL, CK <24U/L, BUN 18.3mg/dL, CREA 0.85mg/dL, Na 139mEq/L, K 4.1mEq/L, Fe 28 μ g/dL, CRP 5.64mg/dL, HbA1c 5.8%, TSH 1.249 μ IU/mL, Ferritin 209ng/mL

[Antibody] Parvovirus B19 IgM (-), RF (-), CCP (-)

[Treatment]

We diagnosed non-specific polyarthralgia by viral infection. There was a possibility of reactive arthritis as a differential diagnosis, however, symptomatic treatments were recommended anyway. We added 7.5g/day of *boiogito* (*Fang-Yi-Huang-Qi-Tang*) extract to 200mg/day of Celecoxib on his first visit. His symptoms gradually improved within two weeks. He continued that medications for a months.

Case 2: 55 year-old female

[Main complaint]

Polyarthralgia

[Past history]

Type 2 diabetes mellitus, hyperthyroidism, hyperlipidemia, hypertension
(these were well-controlled)

[Medicine(/day)]

Thiamazole(5mg) 3T, Alogliptin(25mg) 1T,
Pioglitazone(15mg) 0.5T, Glimepiride(1mg) 1T,
Pitavastatin(1mg) 1T, Amlodipine(5mg) 1T,

Irbesartan(100mg) 1T, Azosemide(30mg) 0.5T,
Metformin(500mg) 2T, Loxoprofen(60mg) 3T,
Troloxipide(100mg) 3T

[Life history]

Non-smoker, non-drinker, doesn't have any pets.

Job: a staff of a welfare office

[Present illness]

She felt both coxalgia a few years ago but didn't have any medication because a rheumatologist she consulted excluded rheumatoid arthritis.

Thereafter she had pain of both knees and ankles from one year ago, which sometimes disabled her to walk only 50 meters. Furthermore, both coxalgia and shoulder pains occurred but other rheumatologist in the city hospital she consulted diagnosed as no problems. Non-steroidal anti-inflammatory drugs (NSAIDs) that her home doctor prescribed was not effective, moreover, she presented finger pains. Her home doctor referred her to us.

[Physical findings]

Her blood pressure was 130/80 mmHg, pulse 87/min, body temperature 36.5 degrees (Celsius). She had no morning stiffness, perspired a lot, and was not constipated.

She had spontaneous pains of her shoulders, hips, knees, and ankles without tenderness, swelling nor heat.

Tongue signs: Pale red, scalloped, thin white coating, overswelling of veins.

Pulse signs: Strong, slippery

Abdominal pattern: Soft, fat

Skin: Edematous

[Urinalysis] protein (-) , sugar (-)

[CBC] WBC 7380/ μ L, RBC 466 \times 10⁴/ μ L, HBG 14.3g/dL, PLT 27.6 \times 10⁴/ μ L

[Biochemistry] ESR 16mm/h, AST 20U/L, ALT 31U/L, LDH 183U/L, γ GTP 33U/L, CREA 0.67mg/dL, Na 141mEq/L, K 4.1mEq/L, Fe 93 μ g/dL, CRP 0.07mg/dL, HbA1c 7.9%, TSH 7.480 μ IU/mL, Ferritin 86ng/mL

[Antibody] U1RNP (-) , Sm (-) , SS-A (-) , SS-B(-) , Scl-70 (-) , MPO-ANCA (-) , PR3-ANCA (-) , CCP (-) , RF (-) , ANA 40times (SPECKLED)

[Treatment]

We diagnosed non-specific polyarthralgia by viral infection, not collagen diseases such as rheumatoid arthritis. We prescribed 7.5g/day of *boiogito* (*Fang-Yi-Huang-Qi-Tang*) extract on her first visit. Her polyarthralgia disappeared immediately in a few days. We completed this medication within two months.

Discussion

When examining the patients with arthralgias, it is necessary to distinguish severe or emergency diseases such as pyogenic arthritis, gouty arthritis, or pseudogout. And then we survey autoimmune diseases; in particular rheumatoid arthritis, systemic lupus erythematosus, psoriatic arthritis and Reiter syndrome among other things. Moreover, viral infections also cause polyarthralgias. The following kinds of viruses are common as the causes; hepatitis B/C virus, rubella virus, parvo virus B19, dengue virus, mumps virus, coxsackie virus, herpes simplex virus, varicella zoster virus and chikungunya virus.

Viral arthritis commonly has symmetrical arthritis like rheumatoid arthritis but no destroying the joints. It usually doesn't have neither lengthening of the symptoms nor recurrences except for rubella virus, parvo virus B19, chikungunya virus and alpha virus. It is difficult to identify the virus causing polyarthralgia unless patients have rashes or other distinctive symptoms. Medical treatments for viral polyarthralgias are usually only symptomatic therapies, for which NSAIDs are used as standard medicines. We have to pay attention to adverse effect of NSAIDs, for example gastric ulcer and renal injury if patients take for a long time period. Furthermore, effect of NSAIDs alone is sometimes insufficient. Combination therapy of

NSAIDs and kampo medicine is expected to be safe and effective.

Boiogito (*Fang-Yi-Huang-Qi-Tang*) extract is from “*Jin Gui Yao Lue*”, which says that *boiogito* treats the patient with wind-dampness, floating pulse, heavy sensation of body, sweating, aversion to wind. In general, Japanese criteria of choosing *boiogito* are soft and wet skin, edematous skin, excessive sweating, heavy sensation of body, and getting worse when bad weather. It improve Bi syndrome that means arthralgia, numbness and dyskinesia in traditional Chinese medicine’s theory to tonify qi, promote diuresis, dispel wind.

There are some randomized controlled trials (RCTs) of *boiogito* about the effects for polyarthralgia.¹⁾⁻³⁾ Moreover, other RCTs suggest that *boiogito* suppresses production of interleukin 6 or 8 dramatically in synovial membrane cells.⁴⁾⁻⁵⁾ On the one hand there are no studies of *boiogito* about the effects for acute arthralgias or viral arthritis.

In this case report, we diagnosed both cases as polyarthralgias caused by viral infection because we couldn’t find any evidence of other differential diagnosis. Both were treated insufficiently with NSAIDs alone, and then improved by combining with *boiogito*. These cases suit Type 2 “The effects of standard Western medical treatment and Kampo treatment are both strengthened when the two are used in combination” that Dr. Yasui propounds.⁶⁾

Kampo is very safe and useful therapy if it can suit criteria to symptoms.

Conclusion

Boiogito can be the first line drug for acute or subacute polyarthralgias caused by viral infection or unknown pathophysiology.

References

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