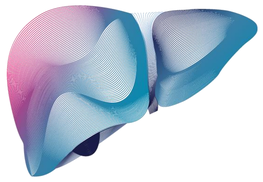
EASL CONGRESS 2023
Vienna, Austria
21–24 June



Efficacy of direct-acting antivirals in patients with hepatitis C virus-associated cryoglobulinemia and monoclonal gammopathy

S. GAVRISHEVA[1], D. ABDURAKHMANOV[2], N. BULANOV[2], E. TANASHCHUK[2], T. ROZINA[1,2], T. KRASNOVA[1,2] and S. MOISEEV[1,2]
1 Lomonosov Moscow State University, Moscow, Russia
2 Sechenov First Moscow State Medical University, Moscow, Russia

LOMONOSOV MOSCOW STATE UNIVERSITY

SECHENOV UNIVERSITY

Introduction

Monoclonal gammopathy (MG) is caused by a clonal expansion of plasma cells producing a unique immunoglobulin. It is not fully understood, whether detection of MG can influence long-term outcomes in patients with hepatitis C virus (HCV)-associated cryoglobulinemia treated with direct-acting antivirals (DAAs).

Aim

To assess the efficacy of DAA therapy in patients with HCV-associated cryoglobulinemia and monoclonal gammopathy.

Method

- We conducted a case series investigation of 10 HCV-positive patients with cryoglobulinemia and MG (diagnosed by serum and urine protein electrophoresis with immunofixation), who received DAA therapy.
- Nine patients met the criteria for HCV-associated cryoglobulinemic vasculitis (HCV-CV) and one patient had asymptomatic cryoglobulinemia (AC).
- Patients were evaluated at baseline (before starting DAAs) and every 6 months after the end of HCV treatment (EoT).
- The activity of HCV-CV was assessed by using Birmingham Vasculitis Activity Score version 3 (BVAS.v3).
- In all patients the rate of **immunological response** (defined as absence of circulating cryoglobulins, rheumatoid factor and normal C4 level) was evaluated.
- In patients with HCV-CV **complete** (defined by a BVAS.v3 score of 0) and **partial** (defined as BVAS.v3 score < 50% of the baseline score) clinical response were assessed.

Conclusions

DAA therapy in patients with HCV-associated cryoglobulinemia and MG was associated with high rates of monoclonal immunoglobulin elimination and clinical improvement, however in some cases additional immunosuppressive therapy is required.

References

Fermand J-P, Bridoux F, Dispenzieri A, et al. Monoclonal gammopathy of clinical significance: a novel concept with therapeutic implications. *Blood 2018*;132: 1478–85.
Rodríguez-García A, Linares M, Morales ML, et al. Efficacy of antiviral treatment in hepatitis C virus (HCV)-driven monoclonal gammopathies including myeloma. Front Immunol 2022;12:797209.

Contact information

Sofiia Gavrisheva. **E-mail:** gavrisheva.sofiia@gmail.com

Results

Table 1. Main patient characteristics and treatment results.

Pt	Sex	Age, years	Diagnosis	Ig type	Follow-up, months	IST	Immun. response	Clinical response	MG elimination
1	F	65	CV	IgM kappa	83	—	No	Part.	Yes
2	M	52	AC	IgM kappa	91	—	Yes	—	No
3	F	35	CV	IgM kappa	63	—	No	Part.	No
4	F	56	CV	IgA kappa	76	—	Yes	Compl.	Yes
5	F	48	CV	IgM kappa	71	—	Yes	Compl.	Yes
6	M	65	CV	IgM kappa	24	RTX, GC	No	Part.	Yes
7	F	64	CV	IgG lambda, IgM kappa	61	—	No	Compl.	Yes
8	F	35	CV	N.D.	22	GC, CP	No	Part.	Yes
9	F	72	CV	IgG kappa	51	GC	No	Compl.	Yes
10	F	59	CV	N.D.	44	—	Yes	Part.	No

M, male; F, female; N.D., not determined; CV, cryoglobulinemic vasculitis; AC, asymptomatic cryoglobulinemia; IST, immunosuppressive therapy concomitantly with DAAs; RTX, rituximab; GC, glucocorticoids; Part., partial; Compl., complete; MG, monoclonal gammopathy

- Six (60%) patients had cirrhosis at baseline
- Median follow-up period was 62.0 (46.5 – 76.6) months after EoT
- All patients achieved sustained virological response
- Patient with AC developed Waldenstrom macroglobulinemia 2 years after the EoT
- Immunological response was achieved in 4 (40%) patients, whereas elimination of cryoglobulins occurred in 9 (90%) patients
- Complete and partial clinical response were achieved by 4 (44.4%) and 5 (55.6%) patients with HCV-CV, respectively. Skin purpura was improved in 9/9 (100%) patients, joint involvement — in all 5/5 (100%), sicca syndrome — in 2/2 (100%), and peripheral polyneuropathy — in 2/6 (33.3%) patients.
- Signs of kidney involvement persisted in 3/5 (60%) patients, including declined glomerular filtration rate in two cases and persistent proteinuria in one patient.
- The monoclonal proteins disappeared in 7/10 (70%) patients with a median time of 13.5 months after EoT, 4 of them received immunosuppressive therapy during follow-up
- No patient died during follow-up.